Basic Expedition Leader

Sports Leaders UK, Level 3

Course Notes

Don't forget to see what else we get up to! Please visit www.simonsideoutdooradventure.com

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Contents

Leadership & Party Management

By the end of this unit you will be able to

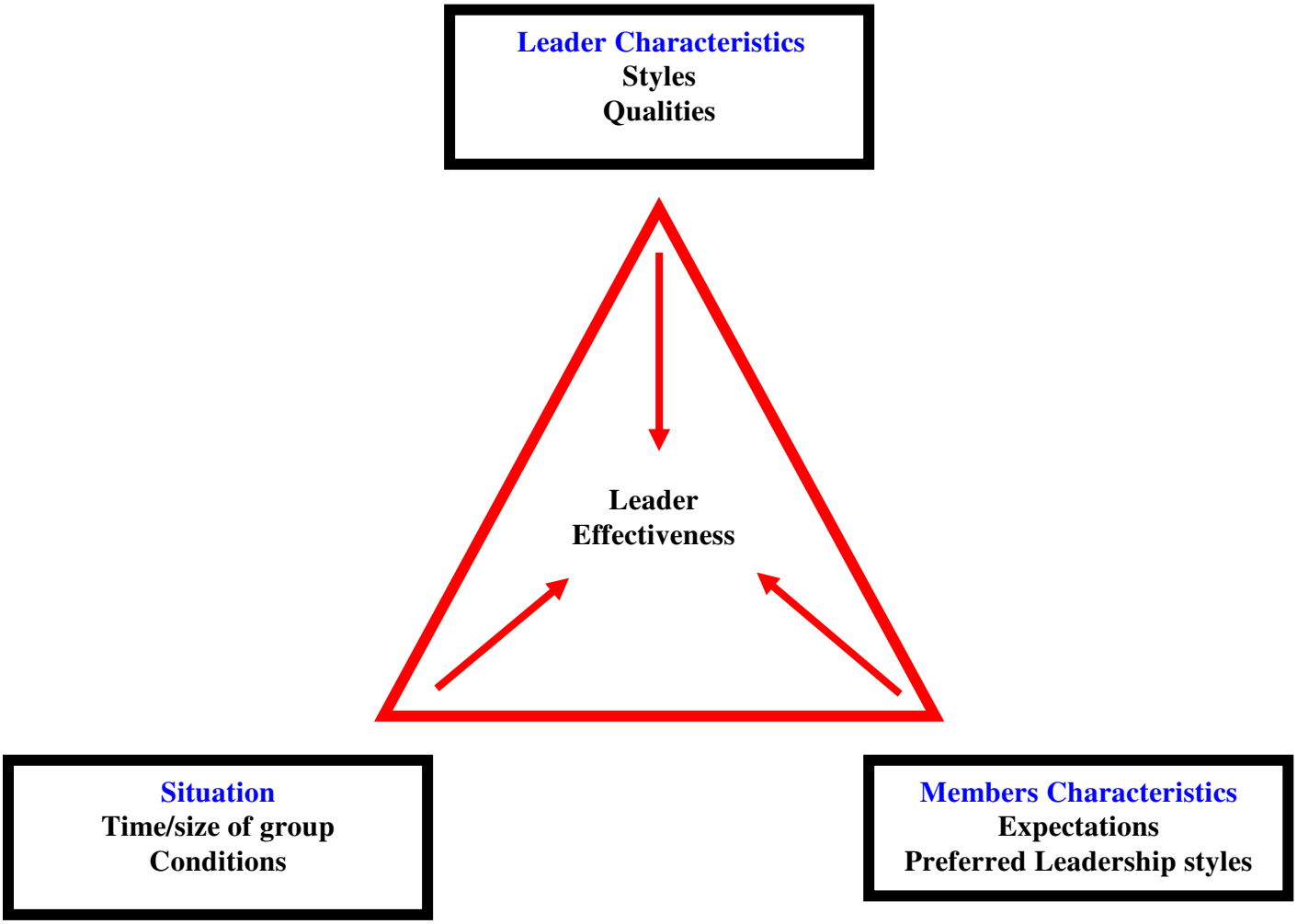
- identify the purpose of the journey
- plan and prepare a scheme of work for a journey communicate the aim of a journey effectively to groups and individuals
- lead groups and individuals with confidence throughout a journey care for groups and individuals throughout a venture
- ensure the safety of individuals at all times
- communicate the review to the group and to individuals
- demonstrate a range of leadership style

A leader in the outdoors can demonstrate that they are competent

- To identify the purpose of the journey
- Plan and prepare a scheme of work for a journey
- To communicate the aim of the journey effectively
- To lead groups with confidence
- To care for groups throughout the venture
- To communicate the review to groups & individuals
- To demonstrate a range of leadership styles
- **To ensure the safety of individuals at all times**

There are many attributes that a leader in any environment must possess. In the outdoors their skills need to be refined and practised. The conditions that we may be working in as Basic Expedition Leaders will dictate how we operate with a group and it is our role to ensure that learning and there experiences are positive.

There are many factors, which affect leadership; the model below demonstrates how they all interact.



Leader Characteristics

There are different styles of leadership that can be used by a leader on a rolling continuum. That is the leader style of delivery can change throughout the day dependant on external influences.

The 3 main types of Leadership style are

i. **Autocratic.** An authoritarian, a leader who makes all of the decisions all of the time.
ii. **Democratic.** A leader who **shares** the decision, with other group members or leaders. Is someone is prepared to change his/her mind based upon advice.
iii. **Laissez Faire.** A leader who lets others make decisions.

All of these styles are effective, depending on the situation.

A good leader may possess some of the following attributes to varying levels.

- Communicator
- Enthusiastic
- Knowledgeable
- First Aider
- Charismatic
- Planner
- Organiser
- Motivator
- Listener
- Skilled
- Friendly
- Approachable
- Helper
- Inspirational
- Empathy
- Flexible
- Trustworthy
- Punctual
- Confident
- Experience
- Committed

Situational Factors

i. Size of the group
ii. Environmental conditions
iii. Fatigue
iv. Equipment
v. Medical needs
vi. Factors outside group control

The factors all need a level of flexibility to manage the group and still meet the aims and objectives of the expedition.

Members Characteristics

A good leader will adapt to the

- Expectations of a group
- Knowledge
- Previous experience
- Individual needs of members of the team

Principles of Leadership

i. Identify a purpose through.

- Safety, Safety, Safety
- Enjoyment
- Education
- Experience
- Interest
- Challenge

ii. Allow the group to be part of the planning for each session

iii. Pass on the aims of the session in a clear concise way, this will aid understanding

iv. Lead with confidence & care for the group throughout the venture
- The session plan may be changed at any time
- Use varied leadership styles both to optimise the performance of the group and to ensure its safety
- Use ongoing and dynamic risk assessments to ensure that the group is enjoying the session

v. Safety
- Be alert at all times
- Be proactive rather than reactive
- Don't be pressured by the group to do things that are unsafe

- Be flexible and open minded

vi. Review all sessions.
- Constructive reviewing techniques
- These should be fun, interactive and educational
- Analysis of what has happened and what lessons can be learnt
- Should involve all participants
- Reviews should be positive in nature

Issues in relation to the outdoors

- Methods of leading different groups; youth, single sex, ethnic groups
- Necessary forms
- Real vs. apparent risk
- Weather
- Positive reinforcement
- Equal opportunities

During the venture remember!

- Keep a watchful eye on the weather
- Identify and anticipate any natural hazards and dangers inc. roads
- The positioning of leaders amongst the group
- Party management and control
- Awareness of the overall needs of the group and the individual needs of party members.

Don't forget you have a responsibility to:-

- To the group
- To individuals
- To the operating authority, parent body/parents
- To others
- Equipment

Final thoughts

Insight – Past experiences

Anticipation – What would I do if?

Checking kit – Feelings

Observation – Body language of group

Decision making – Getting it right

"Whilst a leaders responsibilities, in order of priority, may be the safety, comfort and enjoyment of the party. The members should feel it happening in exactly the reverse order for most of the time."

Planning & Preparation

By the end of this unit you will be able to

- Carry out and record a risk assessment for the journey
- Select an appropriate programme for the group
- Inform parents/guardians and participants of the venture
- Obtain parental consent in the case of minors
- Issue a form requesting information concerning any relevant medical condition and fitness of participants
- Arrange appropriate level and ratio of staffing
- Arrange insurance cover
- Arrange adequate support
- Establish channels of communication for use in an emergency
- Select appropriate sources of information on local conditions
- Arrange transport requirements
- Prepare costings for a venture
- Arrange banking procedures
- Produce a statement of accounts

The most basic ingredient when putting together a trip or an expedition is Safety. Whatever other considerations can be made, none are more important than this. First and foremost in the process is to have clear **aims** and **objectives.** Once these are decided upon and they meet the needs of the group then the planning process can be started. Ask yourself the same question at each stage; does this make the trip as safe as possible? And you will be well on the way to a successful venture.

Some factors that need to considered.

1. **Cost**

   - Often the last thing to be considered.
   - Consider cost per person, equipment, transport, venue hire, alternative activities, hidden expenses due to change of plan
   - Statement of accounts need to be made available to all interested parties

2. **Qualifications**

   - Are the qualifications suitable for the activity and are you working within the remit of the award held.
   - Group leaders need to holders of recognised training awards
   - Experience, in the eyes of the law is no longer sufficient and individuals need to demonstrate their level of competence through assessment.

3. **Ability of the group**

   - All decisions are dependant upon this factor.
   - The age, fitness, medical condition, pre walk training, prior experience, ability/disability
   - Flexibility required meeting the varying abilities of each group.

4. **Transport**

   - Minibus, coach, car or meeting the group at the venue
   - Whatever transport arrangements are made there will be legal implications and requirements
   - There are other factors such as environmental impact to consider
   - Use of booster seats
   - Use of appropriate seat belt arrangement for the size and age of the passenger
   - Insurance requirements
   - Need for a trailer
   - Other factors may be: driver hours, luggage storage, parking & security, spare keys, breakdown assistance, fuel costs, journey time and toilet stops (most important)
   - Further information can be sought from www.dvla.gov.uk

5. **Venue**

- Is the location suitable for the needs of the group and he aims of the venture
- The staff, accommodation, equipment, walks time of year appropriate
- Is it cost effective
- Is the centre affiliated to any NGB or does it hold an Adventurous Activity Licence?
- Do you need a pre visit
- Local knowledge
- Further information can be sought from www.mlte.org , www.sportsleaders.org or www.aala.org

6. **Insurance**

- Sports Leaders UK hold comprehensive cover for Bel candidates for 1 year for the course stat date
- Your operating group or Local Authority may provide insurance for the venture
- Further information is in the BEL handbook on pages 7-8.
- Make sure that the level of cover is sufficient for the venture

7. **Equipment**

- Not forgetting the difference in quality between staff equipment and that of the group, all should meet the purpose of the venture for the duration of it.
- Ensure that a kit list is sent out with plenty of time
- Ensure that a kit check is made

8. **Timescales**

- This is not just the length of the day but also the amount of time required in the whole planning process from conception to execution and review.
- Set realistic goals
- Ensure that all understand what needs to be done and when by all involved
- **Don't compromise safety!**

9. **Staff Ratios**

- This number is dependant on the activity taking place and the level of dependency that your group requires.
- Group ability is closely linked
- Bel qualified staff should be working on a ratio of 1:8 max
- Consider age of group
- Gender of team will affect staff supervision

10. **Emergency Procedures**

- When do you need help?
- What type of help is required?
- Who will co-ordinate?
- These questions need to be answered prior to departure
- When things go wrong it is always at the worst possible moment
- Who is to be informed?

11. <u>Paperwork</u>

- This is everything that needs to be completed, signed and approved before the trip takes part.
- Receipts, consents forms, parental briefings, **educational visits** forms (EV).
- Risk assessments, weather reports, designated persons, bookings and confirmations and registrations.

12. <u>Risk Assessment</u>

- To fully complete a risk assessment then a pre visit should be completed.
- This is risks presented to the group, not just on the walk but from leaving home to returning.
- The group means everybody including staff
- The risk assessment needs to be realistic but thorough.
- A review of the risk assessment needs to be made if visiting the same venue as previous years.
- **The risk assessment must be Recorded**

13. <u>Alternatives</u>

- These must also be risk assessed
- Could mean a simple change of route but also a complete change venue or activity.
- Whatever the activity it must be quick to organise, easy and accessible and fit within your budget and level of consent.
- The final decision is cancel the trip/walk and reschedule the trip for a later date.

Final Thoughts

There is often a lot of preparation and organising involved. Don't cut corners or compromise if it affects the safety of the venture.

For groups that are affiliated to South Tyneside Local Authority then Educational Visits Proposal Forms need to be completed for all adventurous activities. Model consent forms, supporting letters and generic risk assessments are available online on the authority's website.

www.southtyneside.info/learningandleisure/yss

Then go to Outdoor Education ⟶ policies, procedures and guidelines for undertaking educational visits.

For assistance contact the outdoor education department on outdoor.education@southtyneside.gov.uk

Or visit www.teachernet.gov.uk for information on Health and Safety of pupils on Educational Visits. (HASPEV).

Access & Conservation

By the end of this unit you will be able to

- Adhere and agree to a code of practice for using any site.
- Be able to educate other potential users on the impact of activities on the environment.
- Select and obtain permission for access to an area which is intended for use.
- Monitor and survey the area to ensure sustainable and effective use.
- Demonstrate a basic knowledge of Rights of Way legislation.

Access

Where can we walk in the countryside?

As of October 31st 2005 the 'right to roam' or open access law was passed in parliament. This gives us the right to walk freely across 'mapped access land' without sticking to paths. In England this right was approximately 7% of the nations land with plans to extend this to coastal areas. It is only for persons on foot and does not include other modes of transport nor dogs in some areas with restrictions in place. This act is the extension to the Countryside and Rights of Way Act 2000 (CROW) which also allows other activities at the landowner's discretion & permission or permitted by law.

Where do we have the right to walk in the countryside?

Wherever you see this symbol we can walk openly. This is the open access symbol. Accompanying information such as restrictions, limit of land, distances to other locations and often a map will be posted alongside it as you enter and leave the areas.

Public Rights Of Way.

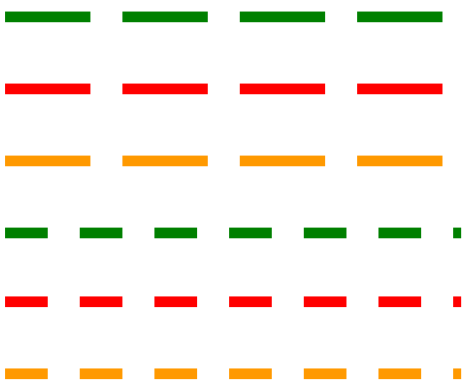
A right of way is a route in which we have a legal right to be on. This may be a Footpath, Bridleway or Byways Open to All Traffic (BOAT). Each has its own restrictions of use but does allow the user access.

On a footpath you can walk. On a Bridleway you can cycle, ride a horse and walk. The order of who has greater right is the reverse order of this list. In reality walkers give way to horses and cyclists give way to all.

Rights of Way are represented on an OS map in green or red depending upon the scale. A bridleway is shown as a longer green/red dash and a footpath as a shorter green/red dash

There are other routes which are shown on an OS map which may not cross access land but we have a right to be there. These are permissive paths and are shown in orange. The permission is by the landowner upon agreement that can be withdrawn with notice. Some permissive paths do cross access land so don't fall into the same category anymore, but for those that don't we still need to stay to way-marked and not deviate from course as we would if on a right of way.

Map Symbols



1:25 000 Bridleway

1:50 000 Bridleway

1:25 000 Bridleway (permissive)

1:25 000 Footpath

150 000 Footpath

1:25 000 Footpath (permissive)

Rights of Way must be signposted and regularly way marked. It does make navigation much easier but still not idiot proof. The following symbols show rights of way markers.

Public Bridleway

Public Footpath

National Trail

Public Byway

Conservation

We work in a diverse, ancient and irreplaceable environment. Our actions can leave lasting impressions on the landscape and spoil it for future generations. Protecting and promoting the protection of the countryside must be evident by our own actions and we must instil those same principles with our groups.

It must start at the planning process and involve the group as much as possible, the plan to minimise the impact that our venture will have must continue from initial conception to review.

- Avoid paper waste, information where possible should be sent electronically.
- Travel to the hills in a minibus as opposed to multiple cars.
- Be aware of car parking; do not block gateways and country lanes.

- Use popular surfaced paths where possible, sticking to stony ground.
- Be aware of footpath erosion.
- Resist the temptation to cut corners.
- Avoid scree running.
- Cooperate with diversions.
- Use gates and stiles.

- Do not climb walls & fences.
- Do not remove stones from dry stone walls.

- Minimise rubbish prior to departure.
- Do not carry breakables.
- Carry all litter out from walk, inc. fruit.
- Do not bury it as animals will dig it up.

- Do not start any fires.
- Be aware that in dry period's fires need little help to ignite.

- Cairns can provide useful way-marks but not necessarily where you want to go, don't build new ones or add to existing ones.
- Be aware of bird restrictions, nesting, lambing and the welfare of livestock & wild animals.
- Remember, the law protects birds, plants & animals!
- Don't take up gardening in the hills, it is a delicate ecosystem which needs to remain balanced.

- Wild camping can be an exhilarating experience, remember the impact we can have, sanitation, erosion, rubbish, water pollution.
- Toilet waste should be buried or carried out. Toilet paper needs to be burnt, buried or carried out.
- Recycle waste litter from rucksacks.

All of the above seem to be Do Not's, there's also a lot you can do in the countryside, we just have to make sure it remains there by our actions and education of others.

The Country Code

- **Be Safe – plan ahead and follow any signs.**
- **Leave gates and property as you find them.**
- **Protect plants and animals, take your litter home.**
- **Keep dogs under close control.**
- **Consider other people.**

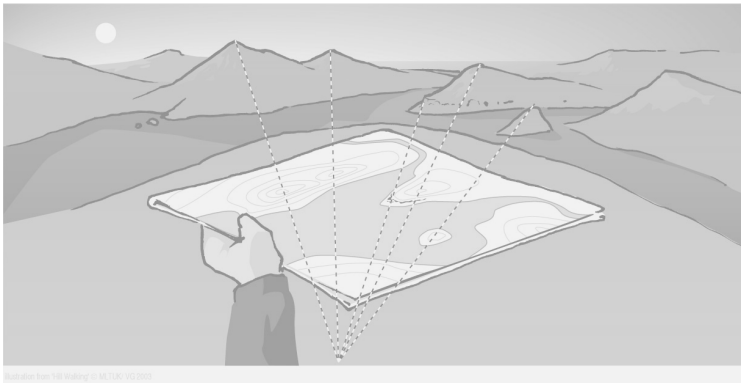
If in doubt or you require further information contact

www.countrysideaccess.gov.uk

Navigation

By the end of this unit you will be able to

- Set an OS 1:50000 or 1:25000 map by relief and compass
- Find their location on a map
- Translate amp symbols to ground features
- Translate ground features to map symbols
- Estimate distances travelled
- Prepare route cards
- Calculate the direction of travel with a compass
- Obtain a gird bearing and transfer it to Magnetic North
- Complete a journey navigating with a map



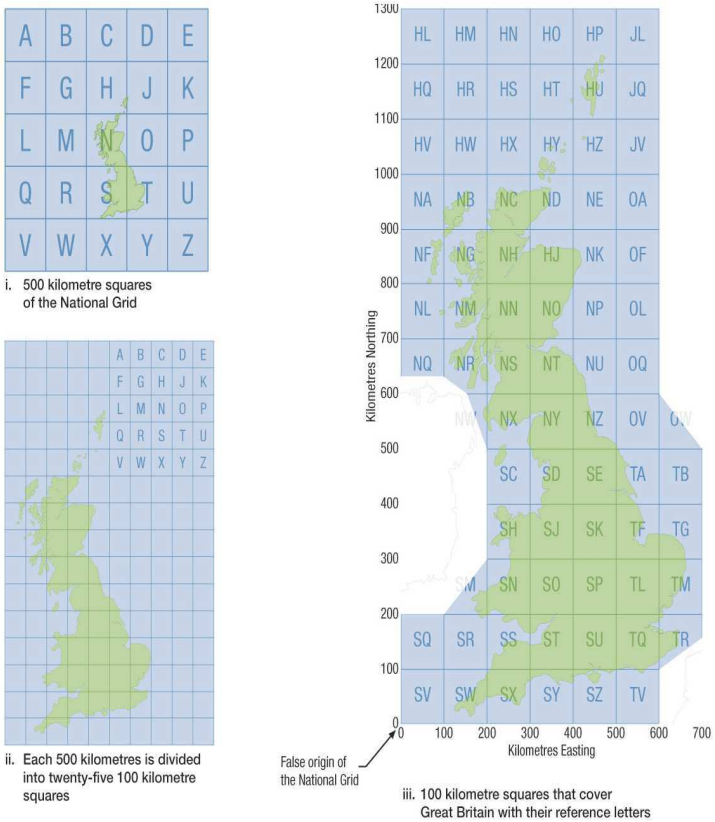
Bel navigation should appear effortless and controlled when out with your group and nothing unexpected should happen that will affect the safety and well being of your group. For this to occur then a pre visit and walk should be undertaken prior to visiting the area with a group. Your skill as a navigator will be in directional awareness, feature recognition, understanding of distance and timings and a 'tool box' of techniques that will give you that seamless and in control appearance when out on the hill.

To do this a good understanding of a map and compass is necessary!

The Map

The map is simply a picture of a particular area shown from a birds eye view keeping everything in proportion to its surroundings, using signs and symbols to represent actual features on the ground.

It shows us a set area which is identified by a reference number/letter similar to that of the postal code system. On Ordnance Survey (OS) maps it will also include a sheet number and in the UK there are 70 area reference codes. The diagram (fig 1) below shows how they are split and the unique area code for each. By combining the area code and the sheet number a specific area can be easily located.



i. 500 kilometre squares of the National Grid

ii. Each 500 kilometres is divided into twenty-five 100 kilometre squares

iii. 100 kilometre squares that cover Great Britain with their reference letters

Fig 1

The map or sheet is also set to a specific scale or size. The most common sizes are 1:50 000, 1: 25 000 & 1:40 000 and are available in a variety of formats from regular paper copies, aqua maps (waterproof) or digital maps which can be downloaded from the computer and printed off to specific areas which you may wish to walk including your own personalised route plan.

- **1: 50 000 = 1 cm on the map is equal to 500m on the ground**
- **1: 25 000 = 1 cm on the map is equal to 250 m on the ground**
- **1 : 40 000 = 1 cm on the map is equal to 400 m on the ground**

The scaling of maps allows us to measure accurately distances between points. The smaller the scale the more detail can be offered on the map. Maps of a smaller scale cover a smaller land area geographically.

The National grid is further downsized to individual sheets. This is done by Grid Lines drawn in blue criss-crossing the map. These lines form boxes which are numbered around the border and at intervals through the map and are called grid squares

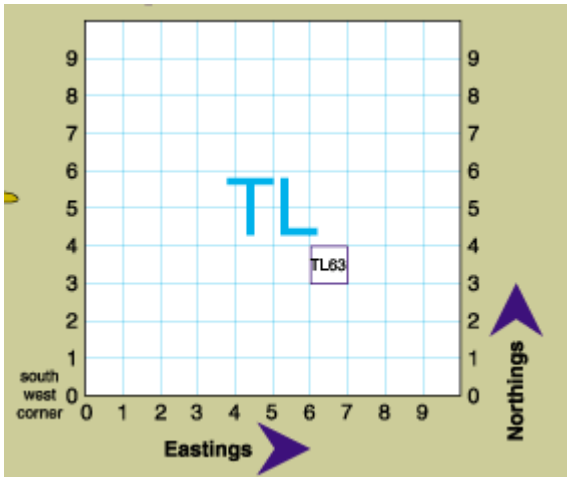


Fig 2

The grid lines are then numbered further still. To give a unique reference point which is called a Grid Reference we use the National grid letters for example TL then the grid numbers taken from the map. In Fig 2 the grid reference for one individual grid square is shown as TL63. The Eastings are always given first and then the Northings

It is unusual for a map to have only single numbers for the Eastings & Northings on the sides of the map and are normally double figures. This leads us to a 4 Fig grid reference which gives us an area of 1Km^2. Fig 3 shows a 4 Fig Grid Reference, the highlighted square is now TL 1525.

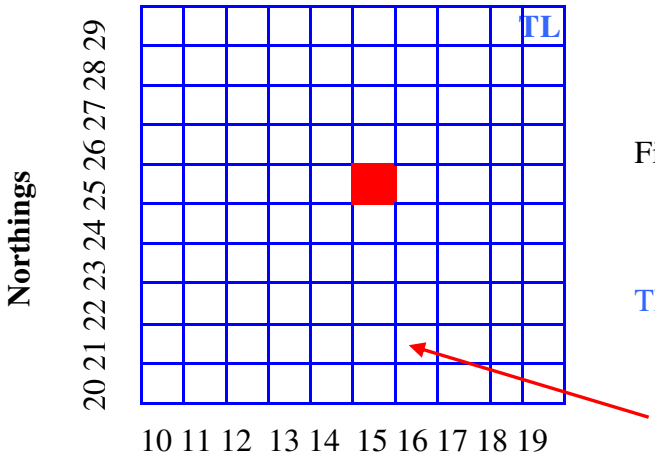


Fig 3

1 km^2
TL 1525

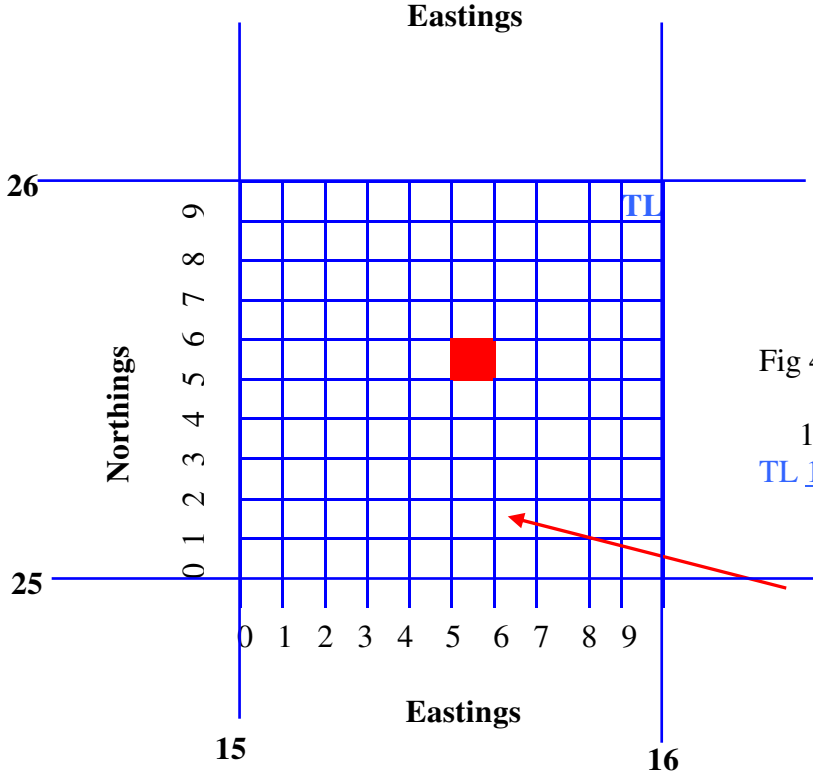


Fig 4

100 m^2
TL 155 255

From a kilometre grid square that individual square is subdivided into 10 equal squares, starting with zero and counting up to nine. Taking the Eastings first and then the Northings our new 6 Fig Grid Reference is now TL 155 255. This means we can accurately give a position fix of 100m^2. (Fig4)

Remember when taking a grid reference always remember Eastings then Northings or 'Along the corridor & up the stairs'

There is much confusion about what North is used and the differences between them. Fig 5 illustrates the variations between the 3 different North's used in Navigation.

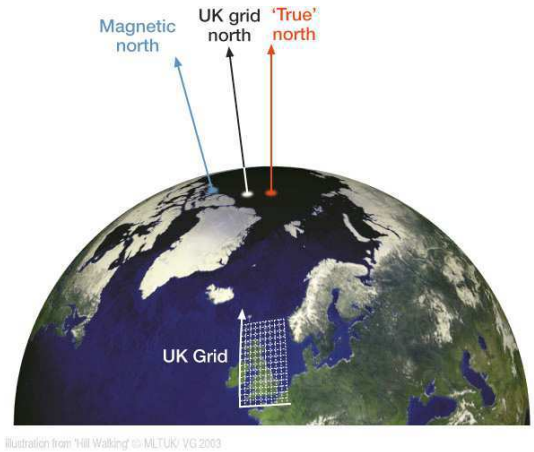


Fig 5

Magnetic North is where our compasses point to, Grid North is the location of the UK National Grid (top of the map and grid lines) and True North is the actual location of the North Pole. For us as navigator's True North is not used but when taking measurements from a map (grid) using a compass then walking on that bearing (magnetic) then a combination of the two is used taking into account the differences between them which is also known as the magnetic variation.

The Compass

A compass is an instrument that measures angles (protractor) and then can allow the user to follow a bearing (shown in degrees from North) in a particular direction. There are many different types of compass but the type most commonly used is shown below in Fig 6

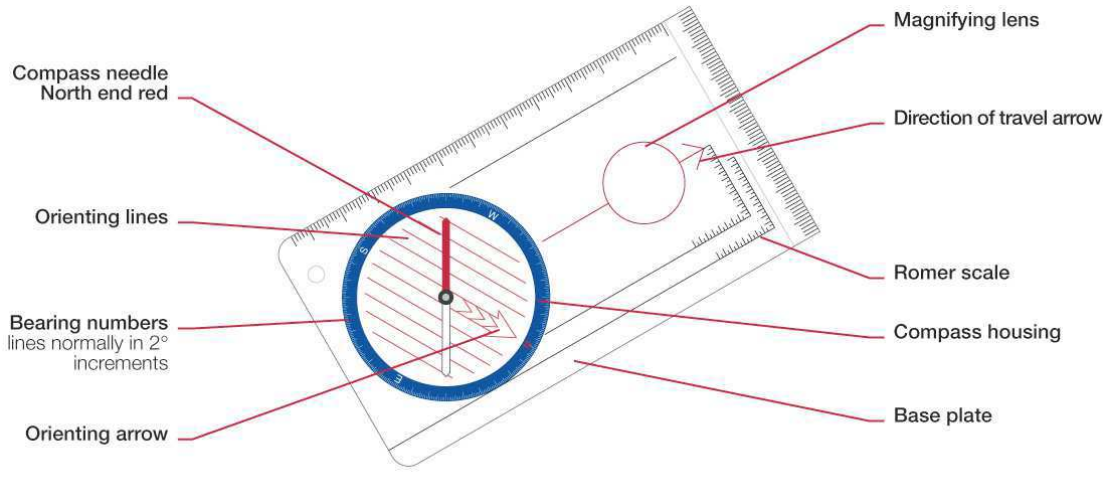
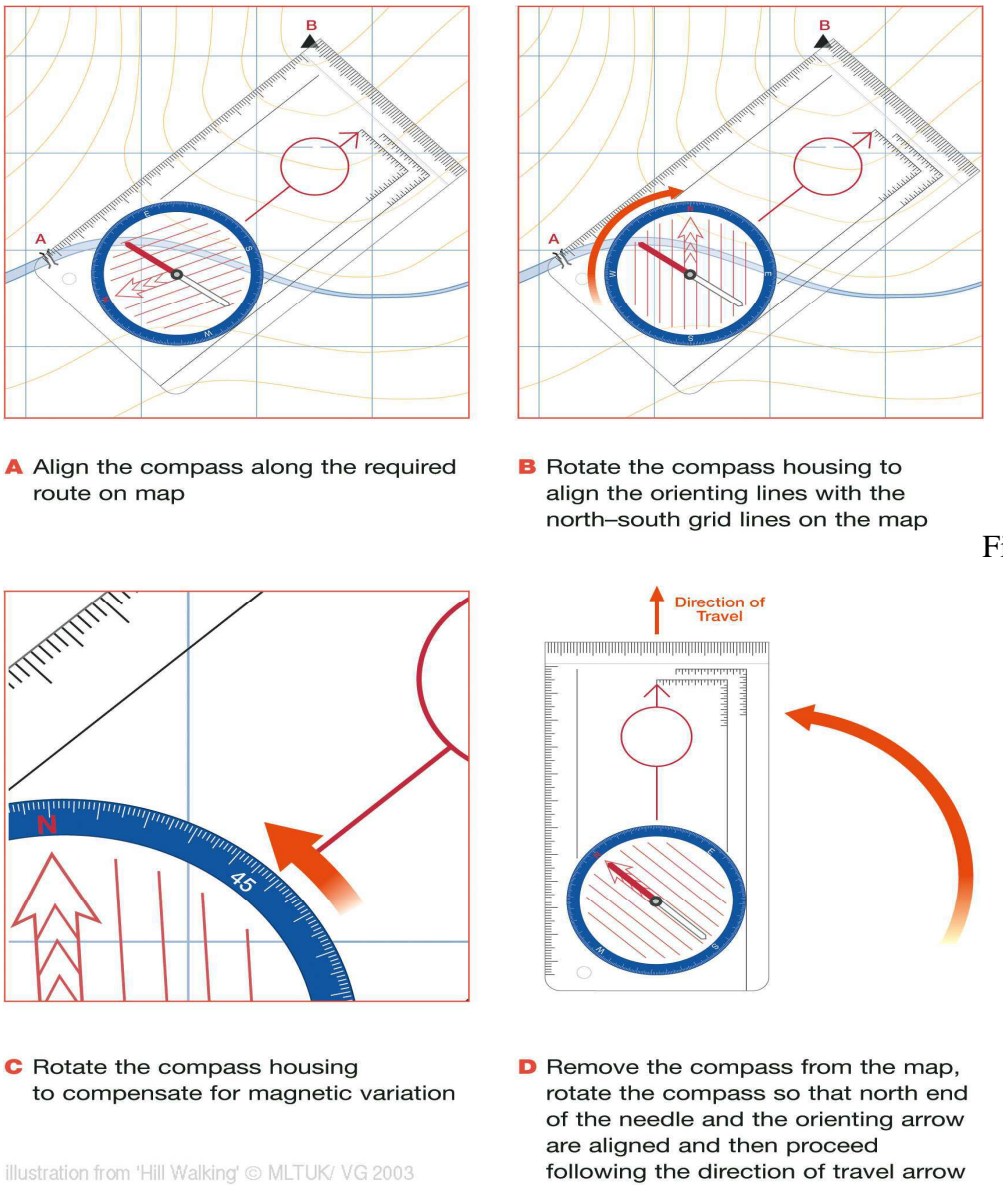


Fig 6

To take a bearing follow the stages illustrated below in Fig 7



A Align the compass along the required route on map

B Rotate the compass housing to align the orienting lines with the north–south grid lines on the map

Fig 7

C Rotate the compass housing to compensate for magnetic variation

D Remove the compass from the map, rotate the compass so that north end of the needle and the orienting arrow are aligned and then proceed following the direction of travel arrow

Magnetic variation at present is 3 degrees.
To remember the direction to turn the bezel on the compass use the handy rhyme.

'Grid to Mag ADD, Mag to Grid GET RID'

The compass can also be used to Orientate or Set the map. Setting the map means to align the map with your surroundings. Using a compass is a quick and effective way of doing this but setting the map by the land and feature recognition takes more skill and makes you more aware of your immediate surroundings. Once you have the map set and you have your location then a direction of travel can be identified.

Contours

These are the brown lines and numbers which are drawn on a map to represent the relief of the land on a 2-dimensional picture. Contour lines show the height, shape and steepness or gradient of the ground by joining points of equal height above sea level. Fig 8 demonstrates the way land form is interpreted by the use of contours. Using an island the water line denotes Sea Level or Zero metres.

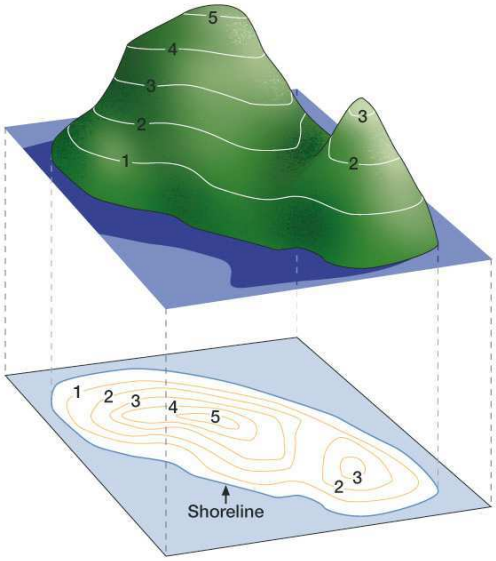


Fig 8

The spacing between the lines is known as the contour interval and a map will denote the vertical spacing of the lines. On Ordnance Survey maps the contour interval is 10m but this can change from map to map. This means we can simply calculate the vertical distance that we need to travel by counting the lines.

The picture below is a useful guide to the gradient of a slope and its corresponding contour lines that you would normally associate with that slope. (Fig 9)

Fig 9

Distance, Speed & Timing

This can be calculated on a map by understanding the scale and measuring using a ruler. This will be a very accurate method but sometimes time consuming to make measuring distance whilst on the move faster; use of a Romer scale like those found on the side of most compasses is a handy tool. The Romer is a ruler which is set to 100m increments so that it can be placed on the map and the distance in metres read off, without having to do any mental calculations and convert the scale of the map into metres. Fig 10 shows that a Romer scale can also be used to take a 6 Figure Grid Reference.

To use a Romer to measure the grid reference, place the corner of the relevant Romer on the point as shown below. Then read off the figures as indicated by the arrows – in this case the reading is 414 512.

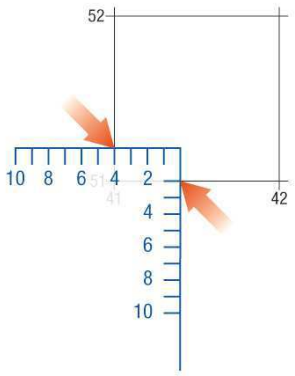


Fig 10

An average person tends to walk at 4 kph but changes in terrain, tiredness throughout the day, load carried and a host of other variables will mean that your pace will fluctuate whilst out walking. It is acceptable to assume that we can travel anywhere between 2-6 kph with an idea of our speed and the distance that we need to travel we can then see how long it will take us to cover a set distance. Use of a timing card like the one shown in Fig 11 will allow us to calculate the whole days venture prior to departure.

Distance travelled metres	**Speed** kilometres per hour			
	5	**4**	**3**	**2**
1000m	12 min	15 min	20 min	30 min
800m	10 min	12 min	16 min	24 min
700m	9 min	11 min	14 min	21 min
500m	6 min	7½ min	10 min	15 min
400m	5 min	6 min	8 min	12 min
200m	2½ min*	3 min	4 min	6 min
100m	1¼ min*	1½ min	2 min	3 min

* These fractions have been rounded up to simplify timing – they should be multiples of 1.2

Fig 11

To accurately work out the time taken to cover a set distance, allowances must be made for the change of terrain and height gain and lost. To take into account the vertical distances covered time must be added for every 10m height gained.

This rule states that

'For every 10m gained in height then 1 minute should be added to the total time'.

NO extra time is allocated for loss of height.

The example below puts speed, height gain and distance into a total time.

4 kph, 1.5 km, 13 contours (130m height increase)

$22^{1/2}$ min + 13 min = $35^{1/2}$ minutes total time

GPS & Satellite Navigation

Today most commonly used as a car navigational tool but first became popular as a navigational aid for sailors and then hill walkers before finding a niche market in the automotive industry. Often seen as lazy navigation, this can lead to inexperienced individuals finding themselves in difficulty on the high hills and open moors. The Global Positioning System (GPS) uses Geo stationary satellites (Fig 12) which hold in known positions above the Earth bouncing signals between a minimum of four different satellites and the receiver device held in your hand. These are then used to triangulate or 'fix' your position giving you grid reference points, altitude, direction and speed of travel. If these are programmed prior to departure they can be followed by simply following the arrow on the LCD display and sometimes listening to instructions. It does require a degree of skill when programming these to ensure that a suitable route has been chosen.

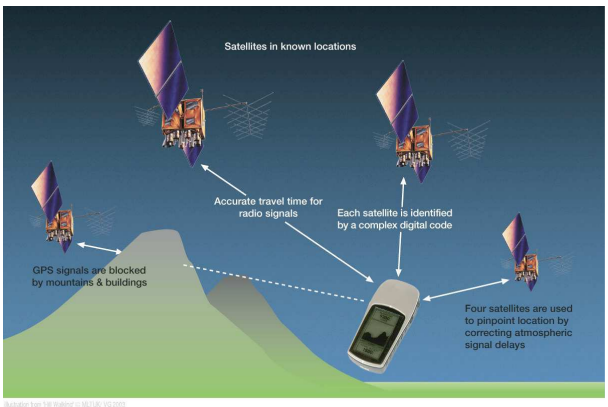


Fig 12

As technology improves solely relying on it leads to an easy life, but on the hill, sole use and a lack of old fashioned navigational knowledge and experience can lead to problems. Combining the science of technology and the art of navigation will lead to the best results.

Tool Kit of Techniques

One of the techniques which prove to be useful whilst navigating is **Handrailing** which is when you follow a linear feature such as a wall, fence or stream to another point. Fig 13 below shows the technique in use. Along with tick off features which are objects/features which we pass on the way it allows us build up a plan or strategy for a leg of our route.

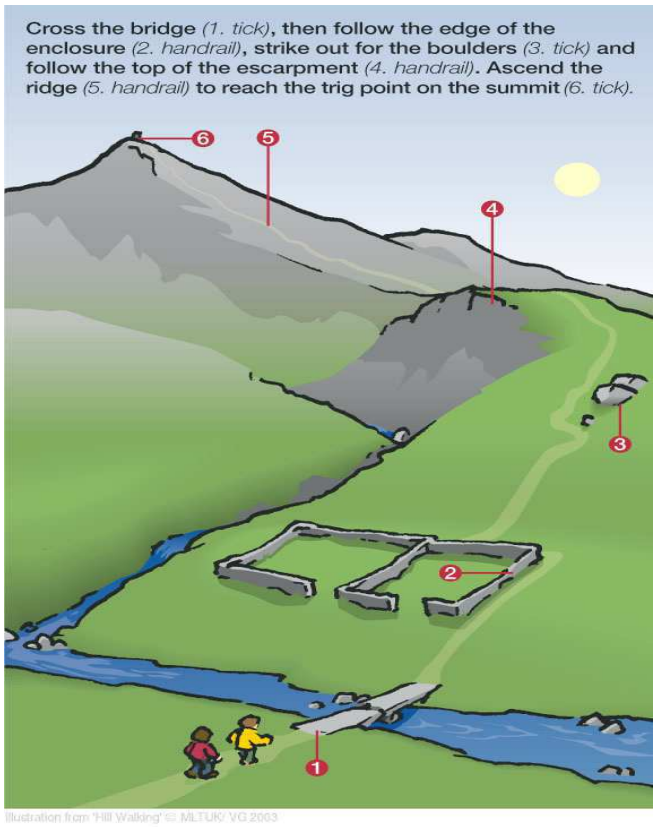


Fig 13

Aiming Off is the deliberate error which enables us to miss our intended target by a set margin then turn left or right and walk onto it. Fig 14 shows how it can be effective.

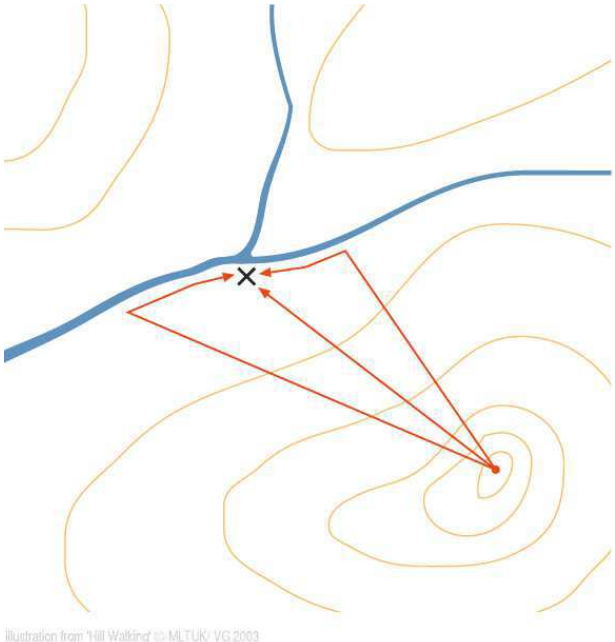


Fig 14

Attack Points are just as they sound. A point on the map that is close to and easy to Navigate to our intended location. After reaching our attack point we can then micro navigate to our destination. See Fig 15 below.

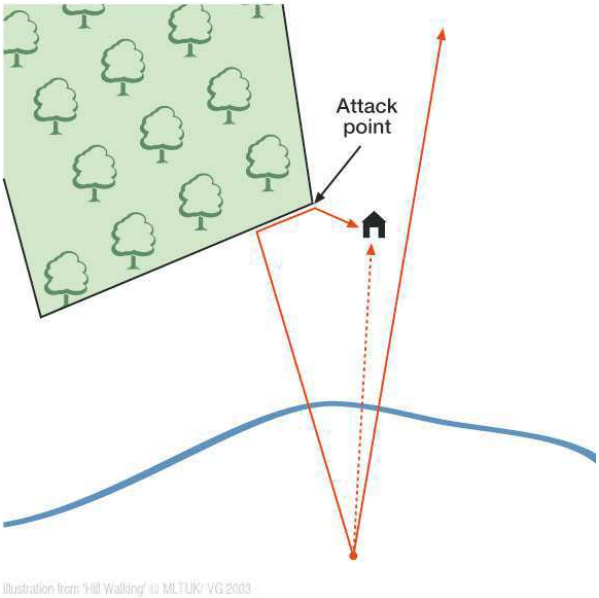


Fig 15

Pacing is based on our own gait (stride length) and the principle that it remains the same from step to step. By knowing the number of double paces (the number of times your left foot touches then ground) that it takes to cover 100m we can then, with a fair degree of accuracy work out the distance we are covering. Using simple calculations and your own pacing chart as a guide it becomes a quick and reliable method of measuring distance for example my pacing chart is shown below. Fig 16

100 m	**60 paces**
50m	**30 paces**
25m	**15 paces**
10m	**6 paces**
5m	**3 paces**

Fig 16

There are exceptions to this rule such as changes in terrain, uphill/downhill will all affect pacing. Using pacing is normally quite an anti-social navigational technique that requires you to count the number of steps and loses count leads to in-accuracy.

Equipment

By the end of this unit you will be able to

- Select equipment for personal use
- Select equipment for group use
- Select equipment for emergency use
- Check that all equipment is serviceable and appropriate to the planned venture
- Supervise maintenance procedures
- Advise on clothing alternatives

Kit List

The following is what may be required depending on the venture for a weekend on the hill including overnight stops. This list is not definitive but, remember everything that you add to it you have to carry!

Personal Clothing

- Boots
- Socks
- Trousers
- Microfleece
- Insulating layer
- Hat
- Waterproof jacket
- Waterproof trousers
- Underwear
- Non cotton t-shirts
- Gloves

Personal Camping Equipment

- Rucksack
- Rucksack liner
- Sleeping bag
- Sleeping mat
- Toilet roll
- Plate/bowl
- Matches/lighter
- Torch
- Spare bulb/batteries
- Money
- Map
- Water bottle
- Food
- Map case
- Insect repellent
- Personal first aid
- Washing kit
- Cutlery
- Notebook/pencil
- Watch
- Sun cream
- Blister kit

Group Equipment

- Tents
- Stove
- Fuel
- Water container
- Food
- Tent repair kit
- Bivi bag
- Group shelter
- Means to provide a hot drink
- Spare clothes
- Knife
- Spare boot laces
- Group first aid kit
- Route cards

Equipment for the outdoors can be a costly expedition in itself so there are several factors which should be taken into account prior to buying any.

- Common sense. Buy the garment or equipment for its intended purpose and what you can envisage yourself doing in the future. Do not go for overkill and waste money, ask advice, do your research and shop around for the good deals.
- Warmth/Cold. What is required of the garment/equipment? Will a layering system work better? Does it have insulating properties? Does it protect you from the weather conditions?
- Protection. Put yourself in clothing or a combination of, which will protect you. Consider wind chill factor.
- Weight. You are going to have to carry it either on you or in your bag. Bulk of the item is also a consideration.
- Expense. Just because it is outdoor equipment, it automatically means it's expensive. Buy to your requirements & be aware of the above factors.

Footwear

Having the correct footwear is essential to support & protect your feet and to help you feel as comfortable as possible. The wrong choice in footwear could lead to aching, bruised, blistered feet cutting short your venture. Boots are categorised depending on their job but consider these options prior to deciding up boots.

- Level of support & protection needed.
    - Terrain & conditions
    - Individuals size & build
    - Foot size & shape
    - Weight carried in rucksack
- Walking boots types.
    - Low level/approach
    - Hillwalking/trekking
    - Four season
    - Mountaineering

Each type is fairly self explanatory from their name. The footwear that is more applicable to the BEL award are hillwalking/trekking. Low level boots may be suitable for some walks where the terrain is suitable and the boot does not require additional ankle support. Possibly for short day walks on slightly uneven surfaces but where traction and control is not the overriding factor. The Hillwalking boot is designed for year round walking (except winter conditions) and these are generally made from leather or fabric and will offer some water resistance, with aggressive tread for grip and traction. Ankle support in these boots is paramount as is the ability to wear them all day or possibly for multi-day treks carrying large loads.

When choosing your boots ensure that they are the correct fit and you can test them at different angles, perhaps performing the ramp test in the shop. Don't expect your boots to be comfortable from the box, often like trainers are, but take time to 'break them in' prior to any long venture.

Your feet can become very tired just wearing boots all day without walking particularly far in them. After use look after your footwear; clean and dry them properly allowing them to dry out naturally without excessive heat which can damage your boots.

Clothing

Versatility is the key to spending time out in the elements. By using a combination of different layers you can regulate your body temperature more easily to suit the every changing weather conditions and your work output. So by using a layering system you choose what works best. Usually this is broken down into the main areas.

1. Base Layer. Often referred to as the wicking layer, this sits close to your skin but still allows moisture and air to freely circulate. This allows it to dry quickly and keep your body comfortable. As they sit close to your skin anti-bacterial fabrics are often used.

2. Mid Layer. Also known as the insulating layer. Often fleece or Microfleece which works by trapping layers of air in between the fabric allowing the body to heat them up. Often the mid layer has no windproof properties and will lose their effectiveness in keeping you warm as the wind penetrates. Windproof mid layers are popular with a Gore/Pertex liner sewn into the garment.

3. Shell Layer. The outer skin provides the windproof and waterproof qualities that it needed to repel the elements. Beneath the shell the other layers can then work effectively. These need to be breathable to allow the dispersal of sweat from the body.

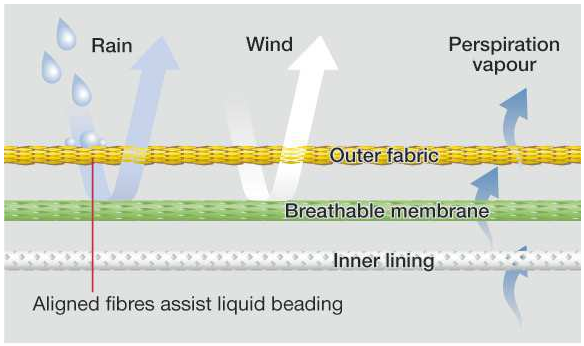


Diagram left Fig 17 shows the layering system used in shells layers which allow the fabrics to be both waterproof & windproof and all the body to breathe.

Socks

A good quality pair of walking socks will make a difference between a good day on the hill and a painful experience that you don't want to repeat. Take time to find the right type for your feet, liner and over sock or one layer only. Whatever your choice, try to find a sock which has a higher percentage of wool over nylon as football type socks are uncomfortable and create a lot of friction between the foot and boot.

Underwear

Specialist underwear isn't really necessary but choose something comfortable that you can wear all day. Be aware that some fabrics become quite smelly and fail to dry quickly when they become wet therefore not insulating you.

Trousers & Tops

Any comfortable warm trousers, but NOT jeans as once wet become heavy and fail to dry. A non-cotton t-shirt layer and a Microfleece are ideal as they offer warmth and insulation but don't overheat the body and will wick effectively.

Head & Hands

As much as 30% of your body heat can be lost through your head so a warm fleece type will be ideal. Often hats come with a windproof layer built in to keep the chill off. Woollen hats tend to droop and stretch when wet and become a nuisance. Don't forget a hat isn't just used to keep your head warm, protection from the sun is also important. A wide brimmed hat will be better than a baseball cap.

Your hands are fairly robust and are used to being open to the elements and generally take a lot of abuse, however, care should be taken to protect them and keep them warm. Windproof gloves are now as cheap as regular liners but lightweight shell layers are also available to keep your hands waterproof as well. Mittens are a warmer alternative than gloves as they keep the fingers together sharing their heat.

Rucksacks

A good rucksack should be comfortable to carry and can be easily adjusted to make it stable even on rough terrain. Like all equipment rucksacks are made for designated activities and although some are compatible for others they are not always ideal. Choice of bags is huge and varied and some manufacturers specialise in ladies rucksacks where size and back length is a big consideration. Choose one that fulfils the aims and your needs for the majority of the time. Adjustable volume, side pockets and compression straps are all features that are available. The size or capacity of a rucksack is measured in litres.

Capacity

A 25-35 litre rucksack is big enough to carry waterproofs, spare clothes, food/drink and a small first aid kit. Ideal for low level day walks in summer conditions.

A 35-45 litre rucksack is perfect as a group leader day sack and can hold all the extras that may be needed such as a brew kit, group shelter, bivi bag and spare food.

A 65-75 litre rucksack is suited to medium length 2-5 day expeditions backpacking where you need to fit in your tent and sleeping bag and the other additional items required.

Sleeping bags

Sleeping bags are rated for different conditions and temperatures. They are categorised into seasons that allow the buyer to select one which is fit for purpose.

- **1 Season;** summer use only (June-August)
- **2 Season;** late spring to early Autumn (April-Sept)
- **3 Season;** Spring to Autumn (March-November)
- **4 Season;** All year round for cold winter nights
- **5 Season;** Generally used for overseas high altitude & winter mountaineering.

The more seasons the bag is rated then the bigger then pack size and the bulkier it is. The better the bag is, the more expensive they tend to be and the warmest rated bag available may not be the ideal choice for your needs.

Don't forget you know if you are a 'warm/hot sleeper' or if you are cold during the night and require extra layers at home. If this is the case then take this into account when buying your bag. Another alternative is the use of a sleeping bag liner which can increase the rating on your bag by one and make an uncomfortable night more settled. This will also protect the sleeping bag from sweat, dirt and general wear and tear. The liners are easily washed and can pack down fairly small.

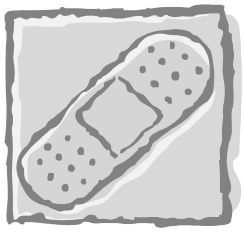
For all equipment and clothing purchases, remember they need to be fit for purpose and suitable for the conditions that they are to be used in. Visit manufacturer's web pages, shop around and quiz sales assistants for their knowledge about particular brands. Try them on and if possible road test.

The choice is personal and up to you!

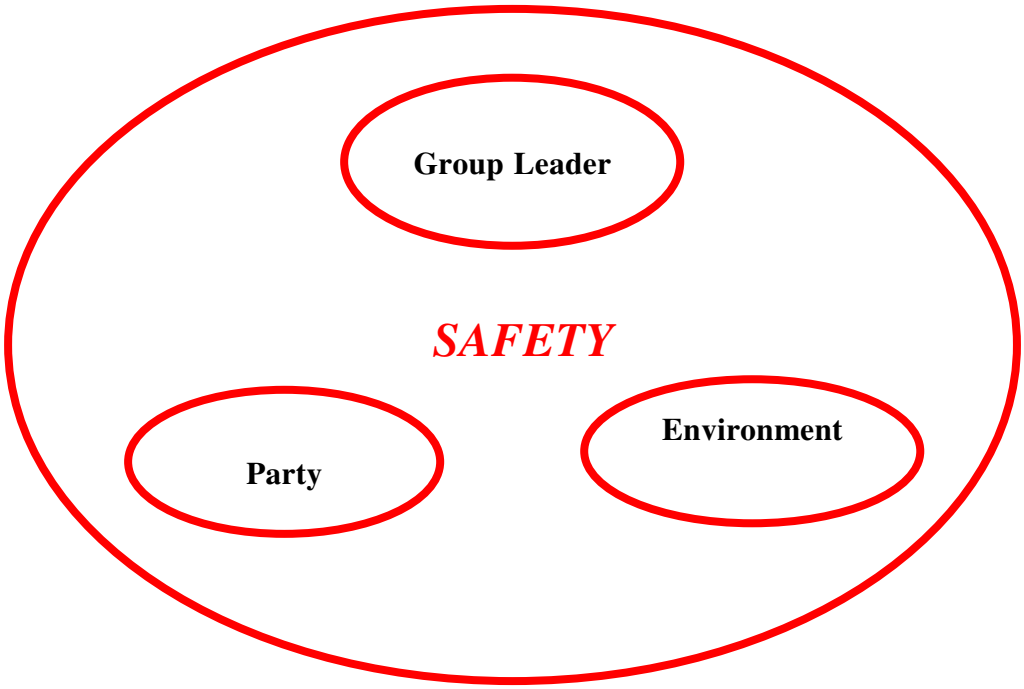
Dealing with First Aid & Emergency Procedures

By the end of this unit you will be able to

- Assemble a first aid kit appropriate to the circumstances
- Take action to prevent accidents
- Administer first aid to a casualty in the outdoors
- Respond to injuries and signs of illness
- Report and record accidents



With any activity there comes an element of risk. The very nature of outdoor activities further increases that risk. Groups should be self-reliant and be responsible for their own safety. The reason is that while an accident in a town can be dealt with in a matter of minutes, an emergency in the hills may take many hours to resolve, as the nearest phone/signal may be miles away. This is certainly a topic with a lot of controversy surrounding it.



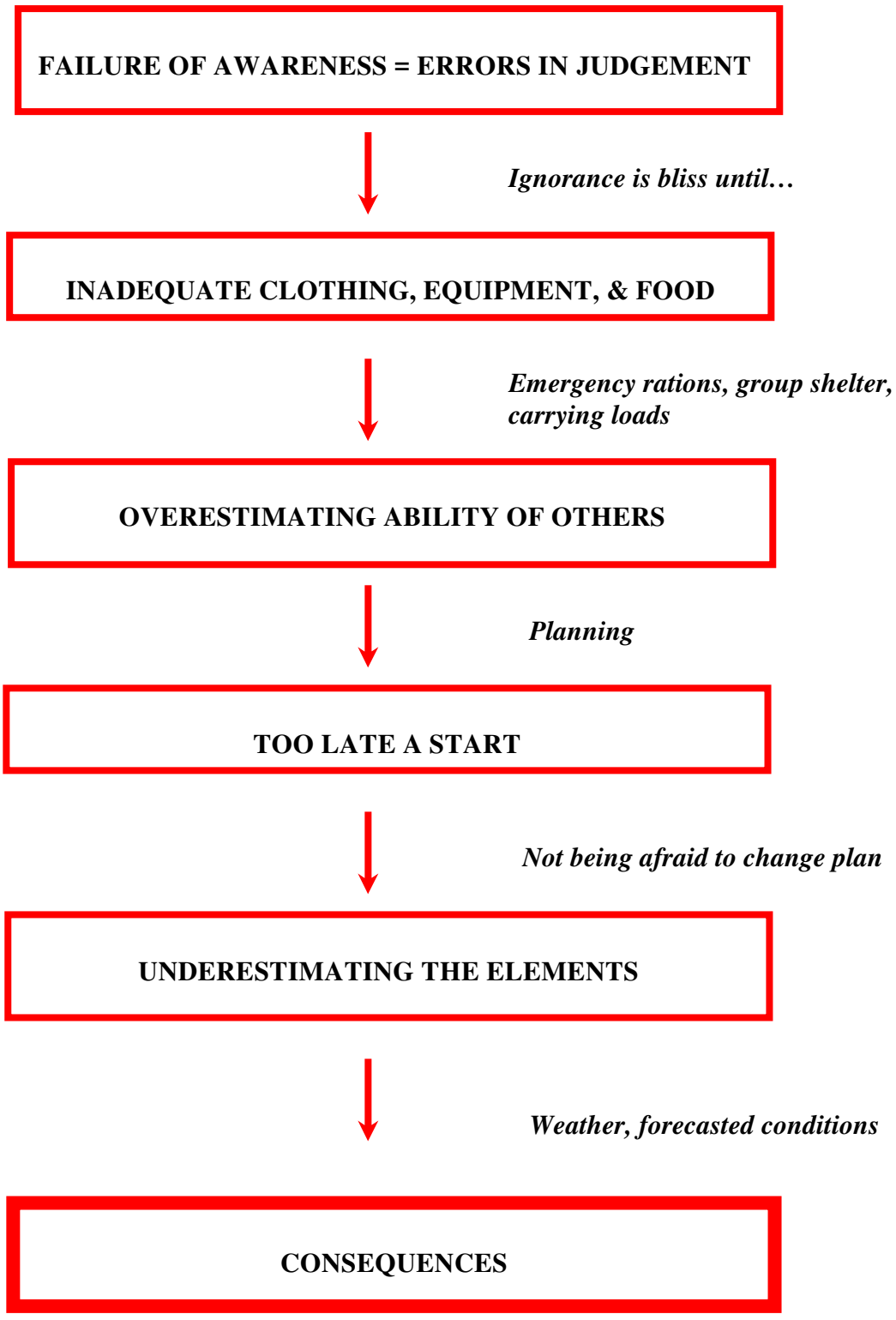
There are two questions that should be asked when considering safety in the mountains

i. **Safety for whom? You, the group, others.**
ii. **Safety how?**

Both elements have the same answer; to develop a **Mountain Awareness.** This is quite simply a matter of spending time on the hill. By getting out, you hone your skills, gaining experience through both the good and bad days. Physically improving your hill fitness, use of map and compass, testing your equipment in varied conditions and getting it just right. Flask vs. stove, too much in a leader bag, what to leave in?

We are in the position of offering *apparent* danger as opposed to *real* danger. We use our greater understanding of the environment so that we never place our group in the real danger with the risk of injury or death. It is part of highlighting the dangers of the world and giving individuals an opportunity to manage the risks to overcome and limit the likelihood of an accident.

AWARENESS = CORRECT DECISION MAKING



Main Causes of Mountain Accidents

i.
- Getting lost
- Too hard a journey, exhaustion.
- Due to the weather, exposure, benightment.

ii.
- Through slips, trips, falls, genuine accidents
- Falling rock, scree

iii.
- Poor decision making

Accident procedure and plan of action

What to do if the worst should happen.

- Assess the situation
- Make the injured party comfortable
- Record suspected injuries, take into account, time, location
- Send at least 2 people for help to the nearest habitation
- Make the position easily recognisable
- Observe the rest of the group and make them comfortable
- Give out tasks to the rest of the group.

What to consider

- What is the availability of assistance
- Daylight hours available
- The weather
- State of the rest of the party
- Nature of casualty
- The terrain

ABOVE ALL, DO NO FURTHER HARM

Is there a possibility of self-rescue?
If the casualty is missing? Search (grid, roam with a purpose)

If deciding to send for help ensure that the following information is written down and checked before departure.

- Number in party
- Number & nature of injuries
- Time of injury
- Location, sheet number, 6-figure grid, description of location.
- Equipment party has

When you reach help. **Dial 999** and ask for the **POLICE**. They will co-ordinate with the other emergency services.

Calling for help

Visual signal, with use of torch, strobe, red flare
Audible signal, shouting, use of whistle

The international distress signal is 6 blasts/flashes on whistle/torch with 1-minute intervals between each set. Listen/watch for a reply. Continue even if you here a response.

'Prevention is better than cure'

'Be proactive rather than reactive'

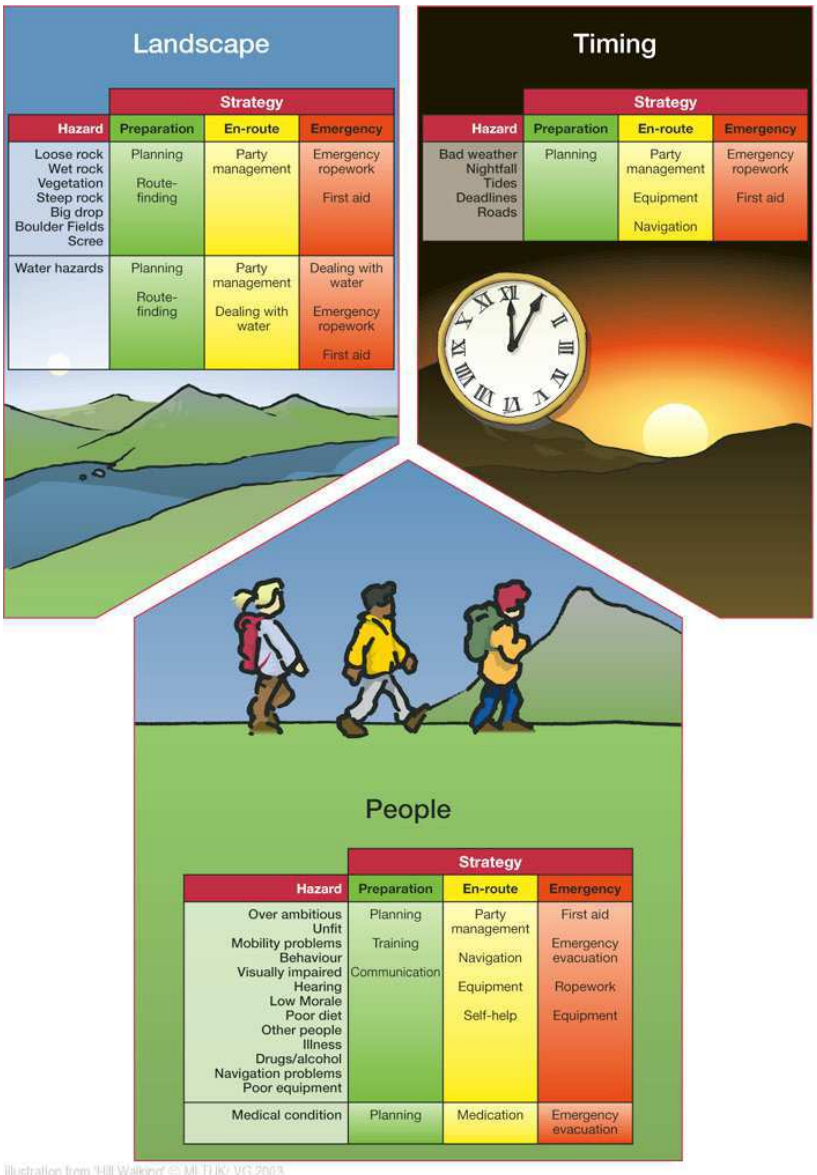
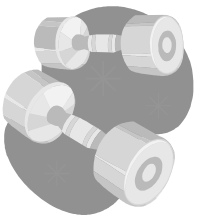


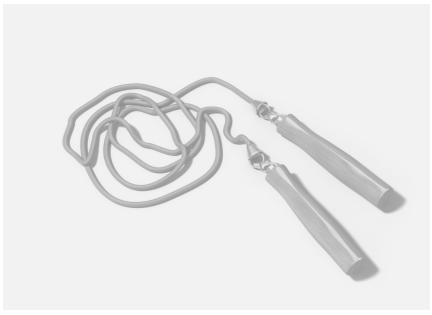
Fig 18

Fitness

By the end of this unit you will be able to

- Select a venture appropriate to the abilities of the participants
- Provide young people with appropriate methods of developing expedition fitness
- Instruct beginners in the care of the feet, hands and shoulders
- Provide information on the links between fitness, diet nutrition and stamina
- Encourage participants to develop a positive mental attitude to journeying





FITNESS FOR THE OUTDOORS

Your Fitness

- Need to be sufficient to match that of the group and to exceed the nature of the walk.
- Can affect the groups confidence in your abilities if you struggle to keep up
- If emergency procedures are needed then your extra fitness is required

Age

- Considerations due to age are load carried, slower walking speeds, medication, terrain, use of walking poles.
- Higher risk of illness (heart, diabetes, arthritis)
- Access to the high hills may be restricted
- Consider choosing venues that may be of cultural or historical value or interest.

Time Available

- Difference in groups walking speeds
- Estimate the groups average walking speed throughout the day
- Consider group needs, regular rests/toilet stops etc.

Physical Disabilities

- Should not exclude anyone from taking part
- More careful planning
- More frequent rests
- Increased toilet stops
- Terrain/surfaces
- Gates, stiles
- Use of wheelchairs
- Who will push

Energy Consumption

- Average adult burns 2500 cal per day as a baseline energy requirement
- Add the stressors of hill walking and this figure can rise to 3500-4000cal.
- Food intake should be regular and light
- Don't eat food that you wouldn't normally eat, just because you think that your meant to
- A packed lunch on the hill is best without the need to cook whilst out.
- Choose high slow releasing energy foods high in carbohydrates.
- Be aware of any dietary requirements that the group may have either medical/allergy or religious
- Young people are not easy to cater for and variety is important
- Take foods that you enjoy!

Weather

- Choose a route that will not tire you due to increased wind.
- Consider alternative routes
- Not always the bad weather that affects performance in the British Isles

FITNESS FOR THE OUTDOORS

Fluid intake

- Need to hydrate extremely important
- Need to consume up to 4 litres per day whilst on the hill
- Hard to consume large amounts at one time, regular sipping is the key to hydration
- Dehydration is a serious problem on the hill and can lead to further complications such as heat stroke, kidney soreness and even death.
- **Drink when your thirsty, drink when your not and drink in-between**

Morale

- Try to get to know your group prior to spending time on the hill with them
- It is your job as leader to ensure that group morale and motivation stays high
- Use diversionary tactics to disassociate the group with the task in hand.
- A de-motivated group becomes a “real uphill struggle”

Walking Speed

- People are comfortable at their own pace
- Pace can change due to numerous factors, uphill/downhill, illness, terrain, tiredness, motivation or weather.
- Expect your group to walk anywhere between 2-5 kph
- Try to vary the pace so that different surfaces, parts of the day are taken into account.
- Don’t force the pace on any group or an individual within the group.

Terrain

- This may be flat, uneven, undulating, track or knee-deep heather. Whatever the surface it will tire your group at different rates.
- An awareness of how each surface will affect performance should be kept in mind
- Remember a right of way shown on the map doesn’t indicate that the surface is in good condition.
- Pre walking the route is the only way of really knowing what is underfoot for the group.

FITNESS FOR THE OUTDOORS

Load Carried

- Acceptable weight that should be carried during a day walk should not exceed 10kg.
- A back packing multi-day rucksack should be under 18kg
- The average group members day sack should contain only essentials; waterproofs, food, fluid, spare clothes, camera and few other items.
- Give out kit lists and check their kit before you leave.
- Increased load often results in poor day on the hill

Injuries Sustained

- Fitness of leader crucial
- Planning and rehearsal of potential scenarios important
- Don't forget other members within the group
- Can you deal with the problem yourselves or do you need assistance
- Don't chose a route which will increase the chances of a injury occurring
- Treat ach injury as they present themselves.

Sex & Physique

- It is reasonable to assume that whatever men can do; women can also do. However, the same cannot be said about young people.
- Any differences can only be based on individuals and not grouped together by gender.
- The size of a person will make a difference with larger people already having an increased weight to carry.
- Remember that over the course of a day, fitness levels may even out
- It will take more to food to fuel a larger person generally. Treat each group member as an individual when it comes to their needs and requirements

There are numerous extraneous variables which affect the fitness levels of an individual or a group working on the hill. It is your job as a group leader to consider all of these options and make an informed decision, which can be evaluated at regular intervals during the day.

The Weather

By the end of this unit you will be able to

- Select appropriate sources of weather information
- Apply a weather forecast to the plan of a venture
- Plan adjustments to the proposed venture when indicated by the weather forecast
- Understand terminology used in weather forecasting

The weather in Britain is often the topic of conversation with the accuracy of prediction often causing discussion. But why is the weather in the UK so 'varied' and 'changeable'. There are numerous reasons for this but essentially this can be attributed to us living on an island with a large continental mass to our south and east, the Atlantic Ocean to our west and our position in relation to our latitude. We are at the meeting point between polar and tropical air movements. With opposing forces of air meeting it leads to varied and difficult to forecast conditions.

To fulfil the course requirements for the BEL, an understanding of the weather and its effects on us on the hill whilst working with groups is a simple one. The ability to obtain a weather forecast, interpret it and act upon the information accordingly with the safety of the group being the primary overriding factor.

A weather forecast can be obtained from the following sources

Internet

There are numerous sites both national and international. Some charge to log on but the better ones are free. The BBC or MET office sites are excellent and are often accompanied by user guides and explanations for terms used. The main bonus is that you can easily print the information off and also change the format to suit your needs. All weather forecasts are from the Met Office and are sold to other agencies. This way the information you receive is 'straight from the horse's mouth'.

Newspapers

The quality of a weather forecast obtained from newspapers can vary significantly, giving an outlook or a general overview to detailed multi day synoptic charts. The broad sheets usually provide a very detailed summary often including weather maps. If observed over a number of consecutive days this will allow any weather patterns to be noted and will give the perfect opportunity to make any changes to your day/s on the hill. In contrast, the tabloid newspapers tend to give a general overview of the whole of the British Isles. Local newspapers for the area which you are visiting are particularly useful and give a fairly accurate forecast for the weather for that, usually very small geographical area. They include tide times, sunrise and sunset and flood warnings. It is often a good idea to pick up a local newspaper if in the area for a few days. If not for the weather forecast, you will certainly learn more about the area you are visiting. The biggest drawback to newspaper forecasts is the age of the information. Predictions are made the day or night before the issue goes to print so that information you receive is already 24 hours old, and a lot can happen in 24 hours.

Television

They give you a fast, general forecast but like the newspapers they do vary in quality. Nearly always accompanied with visual images, television forecasts can cram a lot of information into a minute or two of air time. Unfortunately, the quality of these two minutes is important.

Radio

One of the best forecasts comes from the shipping channel. Although it is only on terrestrial radio early in the morning and late at night, the forecast you receive for that region will undoubtedly be the most specific and up to date giving all the information you require. If you have access to VHF radios then local coast guard and port authorities will often issue a weather report for that area. Obviously these forecasts can only be accurately used in coastal areas and not inland. Commercial radio stations weather forecasts usually last about 5-10 seconds and are pretty unreliable for anything other than min. temp and wet or dry. Local radio stations like their newspapers will give out more information specific to the region you are working in. You will often receive extra handy pieces of information from these. Because of the smaller area, information is more accurate and reliable.

Fax/Telephone

These vary in quality and cost. Telephone weather forecasts tend to be expensive and brief in so much as the quality of information given out. It is often difficult to write down all of the information over the phone. Fax forecasts although similar in cost to the telephone forecasts are usually far better quality with area specific charts covering a five day forecast.

Ceefax/Teletext

These services give national regional and local forecasts which are updated fairly regularly. Teletext offers the best all round forecast and information which includes snow, hill, climbing, flying (helpful for wind speed and direction) reports. This service does not cost any extra and is available 24 hours. You have a lot of time to record all the data you need and searching for the best forecast.

What effects do the hills have?

- Increase in height leads to a decrease in temp. (lapse rate) (see diagram)
- Wind speed increase as it moves through the hills and smaller spaces (funnelling effect) (see diagram)
- Wind speed & Ambient air temp lead to Wind Chill Factor (see chart)
- Increased risk/likelihood of precipitation.
- Wind speed increases as it moves up slopes (see diagram)
- You lose heat 4 times quicker when wet, than when you are dry.
- All weather phenomenon are exaggerated in the hills from that of urban areas and the effects of often felt quicker and with more severity.

How the weather determines our day on the hill

- Never ignore weather advice/warnings
- Be prepared to change your route for another risk assessed option
- Don’t be afraid to turn back

- Have the correct equipment & clothing for the venture & conditions present & forecast.
- Discuss the weather forecast with the group to allow them to build up their own risk assessment.
- Need for close group control in windy conditions
- Need for very close observation of the group & individuals, remember your equipment is probably of a higher quality of some group members and you may not feel the conditions as quickly or with the same effect.
- Do not venture out if winter conditions are present or forecast.

The following is a brief summary and quick use weather watchers guide on the hill. It is not intended as gospel and any information gained from this should be considered accordingly with the current situation and conditions. Old wives tales can often give you more of an accurate picture than you think. Some of the following sayings may give light to the actual meteorological facts and reasons surrounding these phenomena.

- If clouds are getting lower, it means bad weather is coming.
- If you see the rising sun breaking above a bank of clouds, beware of the wind.
- If the clouds at sunrise have a nasty purple look, it is going to be stormy and windy.
- When the sun sets in a copper sky (bright yellow) look out for strong winds.
- A halo around the moon or sun after a fine spell means wind.
- If the clouds high up are moving in different directions from those lower down, or in a different direction from the wind at ground level, the wind is going to change in their direction.
- When cloud scud rapidly across the sky the weather is likely to become wet and windy, but when they move serenely and leisurely across a broken sky fair weather is likely to continue.
- If you stand with your back to the prevailing wind and the clouds are moving from left to right then a depression is on its' way and the weather will worsen.
- Immediately prior to rain/precipitation there may be an increase in localised wind speed pushing ahead of the oncoming rain cloud.

Weather Chart

The map below (fig 19) shows the isobars, low pressure areas and the 3 types of frontal systems. Wind speeds can be seen from the closeness of the isobars as can its direction as the front moves across the UK.

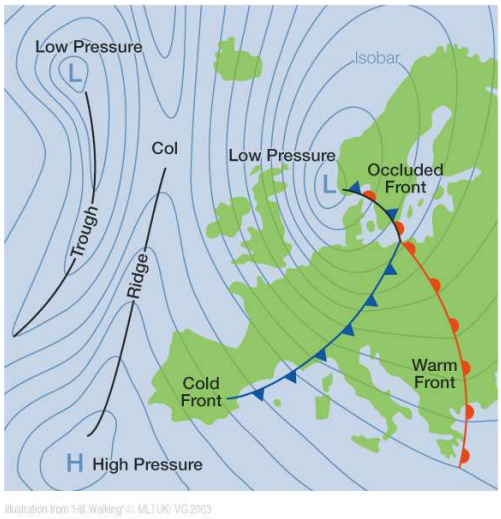


Fig 19

The satellite image below and its corresponding weather chart shows how a low pressure zone moves and what it looks like in reality. The occluded and cold front can be seen on its leading edge. (Fig 20, 21)

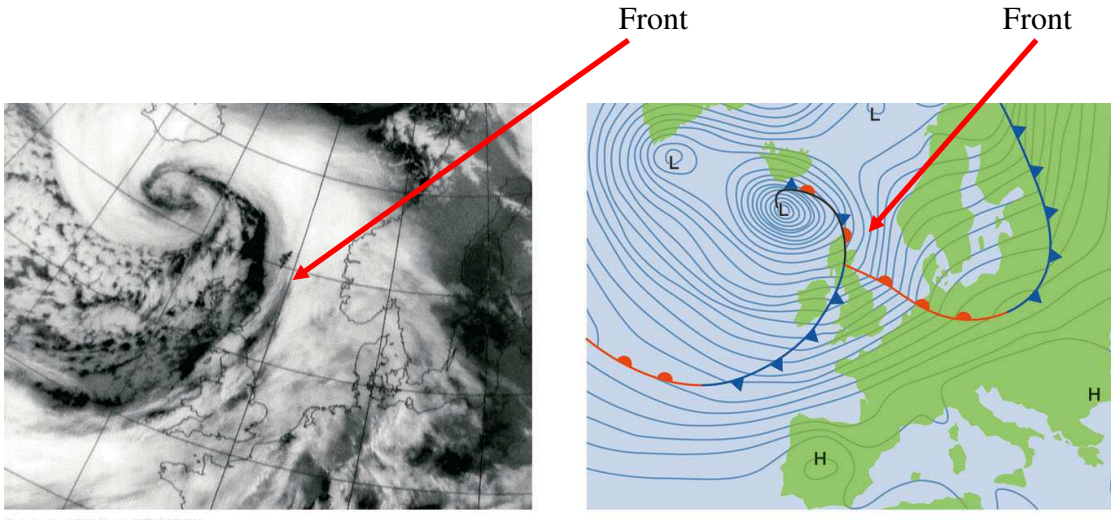


Fig 20, 21

No matter which frontal system passes it will invariably bring the same result. Cloud followed by precipitation.

Cross section of cold & warm fronts as it moves across the surface and the associated cloud types.

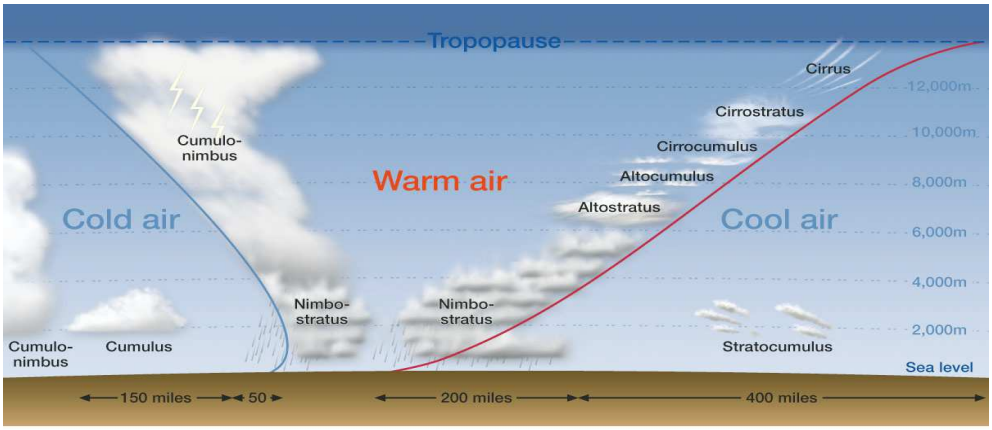


Fig 22

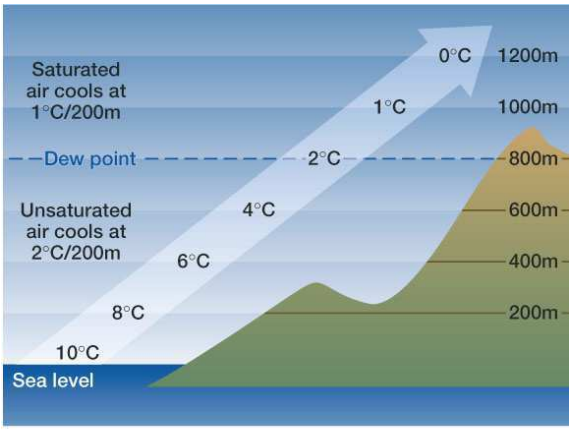


Fig 23

Lapse Rate

Note the difference between wet & dry air temperature and the effect of height increase on the air temp.

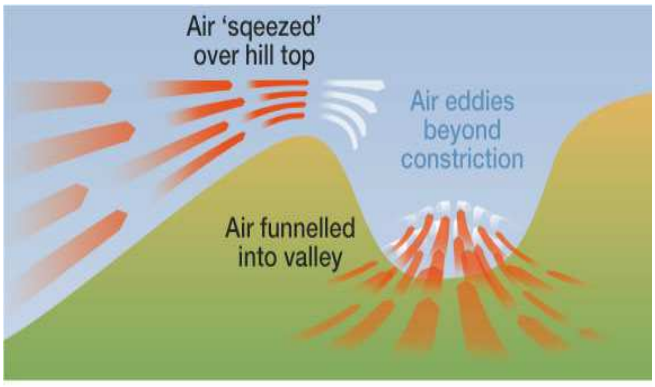


Fig 24

Effects of land mass & shape On wind speeds & direction.

Remember as air rises over the hills it cools, condenses and forms clouds, often leading to precipitation.

Airmasses affecting the British Isles

Arrow indicates direction that air mass approaches UK

Arctic Maritime

V. cold brings cold wet days usu. with snow.

Fig 25

Polar Maritime

Cold, wet and predominant air mass affecting the British Isles.

Returning Polar Maritime

Cool, mainly fair but with showers. Due to long sea track contains a lot of moisture.

Polar Continental

Cold & dry in winter usu. bringing good visibility. Warm & dry in the summer.

Tropical Maritime

Warm, humid & cloudy with rain, poor visibility & fog

Tropical Continental

Hot, dry & dusty often cloudless but sometimes thundery. Poor visibility with haze.

Child Protection

By the end of this unit you will be able to

- Define legal & organisational frameworks
- Identify the signs & indicators of possible abuse
- Have a greater awareness of child protection

To be in a position of trust and responsibility as that of a BEL award holder, we must ensure that we do all that we can to protect ourselves and the group from harm; be that physical, mental or emotional. This next section will raise awareness of child protection generally but also in the outdoors and how the environment will play such a large part.

Legislation & Guidance

The following are all United Nations, European & UK acts of law that are in place to safe guard ourselves, young people and other vulnerable people in society.

- United Nations Convention on Human Rights of the Child
- Human Rights Act 1998
- Education Act 2002 (section 175)
- Children Act 1989/2004
- Every Child Matters: Change for Children 2004
- Working Together to Safeguard Children 1999/2006
- Framework for the Assessment of Children in Need & their Families 2000
- What to do if you're worried a child is being abused 2006
- South Tyneside Safeguarding Children Board (STSCB) procedures www.stscb.org.uk

When working with young people we are to work towards the 5 key outcomes that have been identified by the government as target areas of work. These Every Child Matters outcomes are:

1. Be Healthy
2. Stay Safe
3. Enjoy & Achieve
4. Make a Positive Contribution
5. Achieve Economic Wellbeing

It is our role as group leader which will provide the young people with opportunities to develop in these areas. Some of these lend themselves naturally to the outdoor environment and the group should be encouraged to identify those instances and be part of the implementation.

The Outdoor Environment

In the outdoors we are able often to build relationships of trust and mutual respect with the people we are working with, far easier than in traditional social settings. It is because of this that we must be aware of the impact that we can have on an individual and be able to identify any signs or indications that there may be a problem. There are four categories of abuse, these are;

- Physical Abuse
- Emotional Abuse
- Sexual Abuse
- Neglect

As group leaders we could find ourselves in two situations. Firstly a young person chooses to share their particular problems with you. Secondly as the adult in charge we are ourselves responsible for placing the group members at harm. It is the second area which we will focus upon.

The following is a list of possible instances that we could be doing harm by course of a day on the hill.

- Suitable clothing for the activity
- Increased load in rucksack
- Ill fitting footwear
- Rest stops
- Food/fluid intake
- Length of walk
- Terrain
- Sun cream
- Weather – exposure to the elements
- Pushing the group too hard
- Speed of walk
- Recognising bullying within group
- Placing in positions of *real danger* as opposed to *apparent danger*
- Highlighting/picking on individuals within group
- Poor judgement
- Working outside of remit of award

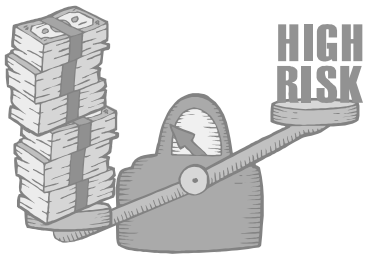
There will be another 1001 other areas of concern for us as BEL group leaders but we need to remember;

Do not put ourselves in a position of question, protect all from harm, report to your line manager and record all information accurately.

Risk Assessment and Risk Management

By the end of this unit you will be able to

- Complete a risk assessment
- Identify risks & hazards
- Put into place control measures
- Understand the procedure for when things go wrong



Risk assessment must consider

- The nature of the site or environment
- The nature of the activity
- The competence of the leader(s)
- The competence of the group

Risk assessment must be

- simple
- manageable
- proportional
- suitable and sufficient

Risk assessment jargon

- Hazard - something that could cause harm. E.g. water, electricity, falling from a height, slipping or tripping, lifting and carrying things, moving vehicles etc
- Risk - the likelihood of the hazard causing harm. E.g. water is a hazard and there is a risk of drowning but the risk is far greater if you get swept out to sea by a tide race then if you take a bath.
- Control Measure - anything you can do to reduce, control, manage or eliminate a risk. E.g. our use of electrical devices poses a low risk because of the safety measures in place (earthing, fuses etc).

The system should

- identify significant hazards
- assess the risk of harm
- put control measures in place
- check if anything else is needed
- use a simple assessment language;
- high / medium / low

HSE Risk Assessment

- Five steps:
- Identify the hazards
- Identify the people who may be harmed
- Evaluate if the risk is adequately controlled and / or decide what needs to be done
- Record your findings
- Review your assessment and revise if necessary

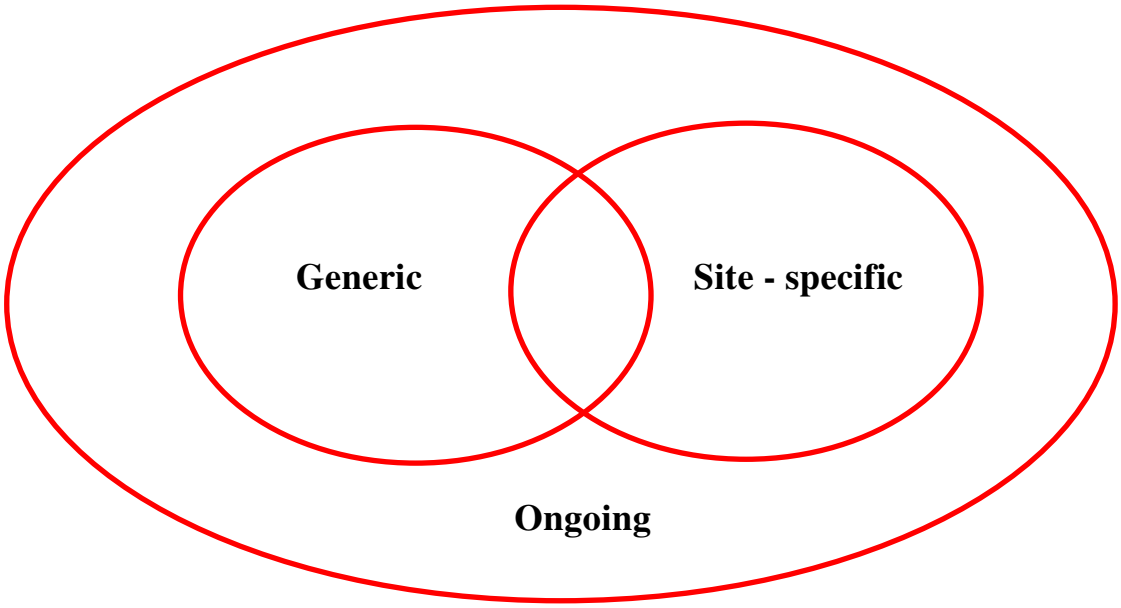
Adequate risk assessment

- Successfully identifies and estimates the hazards and the population at risk and adequately determines the control measures necessary to reduce risk to an acceptable level
- OR
- *Don't do anything unless you know what you'd tell the coroner*

Levels of risk assessment

- Generic – done by or on behalf of the LEA
- Site / group / activity specific – done by the EVC and / or group leader using the generic assessment (should be shared through intranet)
- Ongoing – done by the group leader (only recorded later if necessary to alter site / group / activity specific assessment)

How these relate



Effective ways of managing risk

- Adequate risk assessment – including Plan B
- Appropriate 'rules' and policies – shared by all
- Appropriate levels of staff skills / experience
- Appropriate leadership styles
- Know your group's competence, and style
- Teach by progression
- Develop safety consciousness – involve the group

- Disclosure of risks and parental consent
- Effective emergency planning

Group involvement in Risk Assessment

'Teach - an active and progressive process'

- to recognise risks and hazards
- to use information and equipment
- to manage their involvement
- to explain what they are doing and why
- to understand the responsibilities

Lessons from accidents

- Inability to say NO
- Failure to have a risk assessed plan B
- Lack of clarity in supervisors roles
- Need for ACTIVE supervision
- Be careful near water
- Need for good planning

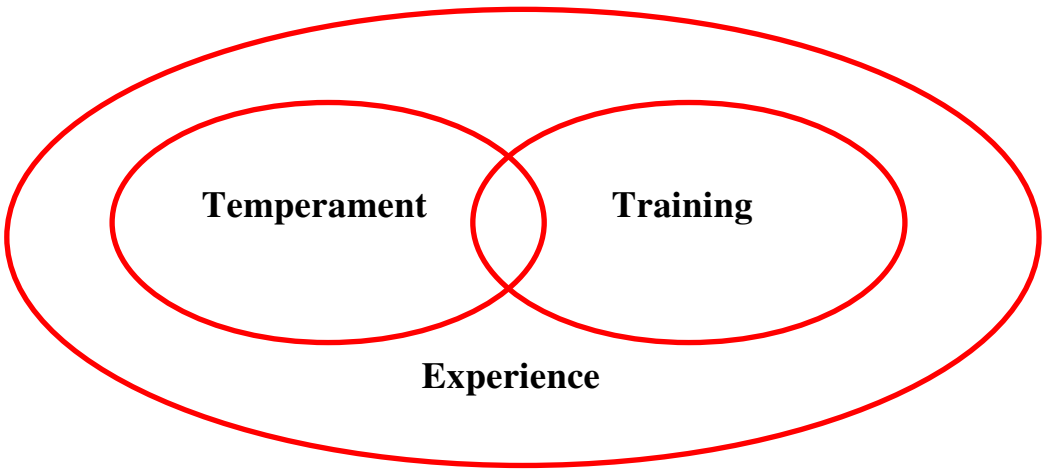
Active Supervision

'Active supervision requires competent staff not a staff/student ratio'

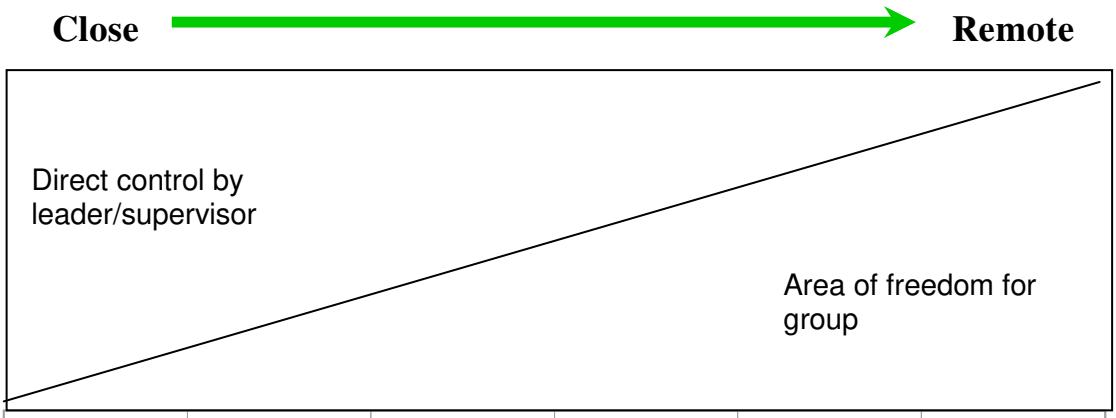
Assessment of competence

- *Standards for L.E.A.s*
- "The OEA…ensuring that EVCs, group leaders and other school staff and other adults involved in educational visits are assessed as competent in their specific tasks"

A Model for judging competence



The Supervision Continuum



Leader makes all decisions and exercises close, direct control	Leader makes decisions but 'sells' them to the group	Leader makes suggestions and invites group to comment.	Leader involves group in the decision making progress.	Leader sets parameters and allows group to make decisions within these. Leader may be close or distant	Group makes decisions and leader exercises distant control through previous training and remote

Emergency Procedures

'When it goes pear shaped'!

- "Group leaders in charge of students during a visit have a duty of care to make sure that the students are safe and healthy. They also have a common law duty to act as a reasonably prudent parent would. Group leaders should not hesitate to act in an emergency and to take lifesaving action in an extreme situation".
- This is where the *Temperament* of the leader is so important

Emergency arrangements

- Know who is the emergency contact point in the school, for each visit, and the LEA – Know how you will contact them
- Have access to an emergency plan
- Carry up to date parental contact information
- Carry consent forms
- Panic card(s)
- Practise emergencies – train for the worst

Glossary

- **Bearing.** A straight line between two points on a map or ground. Expressed as degrees from North 0^0 - 360^0.
- **Col/Saddle.** The low point in-between two hill tops.
- **Contour.** An imaginary line that connects all equal heights on the surface of the ground, shown on the map as thin brown lines.
- **Crest/Summit**. The highest point of a hill or range of hills.
- **Plateau.** A raised area of generally flat land.
- **Re-entrant.** A shallow valley cut into the hillside.
- **Spur.** A prominent finger of land jutting out from the hillside**.**
- **Concave slope.** A slope that is hollowed and caves in.
- **Convex slope.** A slope that bulges out in the middle.
- **GPS.** Global Positioning System or Satellite Navigation.
- **Bezel.** This is the rotating housing on the compass with the degrees shown.
- **Eastings.** These are the parallel blue grid lines on a map which run vertically.
- **Northings**. These are the parallel grids lines which run horizontally.
- **Isobars** are lines on a synoptic chart (weather map) that join points of equal atmospheric pressure. If the lines are close together this indicates increased wind speed. (see diagram)
- **Atmospheric pressure** is the force of the air pressing down on the Earth's surface
- **High pressure** (anti-cyclone) refers to a high barometric pressure usually bringing settled weather.

- **Low Pressure** (cyclonic/depression) refers to a low barometric pressure reading and means unsettled changeable weather usu. in the UK this means rain and cloud

- **Airmasses** are movements of air which is similar in terms of its temp, moisture content, track & origin. (see diagram)

- **Fronts** are the dividing lines separating masses of warm and cold air as the move across the country. The are broken down into 3 categories Warm/Cold/Occluded (see diagram)

Further Reading/Useful Web Sites

www.southtyneside.info

www.southtyneside.info/simonsideyic

www.sportsleaders.org

www.thebmc.co.uk

www.aala.org

www.mlte.org

www.themetoffice.gov.uk

www.ramblers.org

www.southshields-weather.co.uk

www.countrysideaccess.gov.uk

www.teachernet.gov.uk

www.dvla.gov.uk

- Mountain Leadership; Eric Langmuir
- Hill Walking Steve Long MLTUK 2003

Appendices

- **Generic Risk Assessment**
- **Blank Risk Assessment Recording Form**
- **Route Card**
- **Weather Forecast Recording Form**
- **Beaufort Wind Scale**
- **Wind Chill Chart**
- **Group Late Return Action Flowchart**

ACTIVITY	GENERIC RISK ASSESSMENT FOR ALL EDUCATIONAL VISITS This must be read in conjunction with the activity risk assessments that follow.
HAZARDS	**CONTROL MEASURES**
• Travel and transport	• See Generic risk assessment on travel
• Exposure to weather	• Appropriate clothing and equipment for time of year, activity and possible weather • Plan for students who fail to bring appropriate clothing • Adjust plans if necessary
• Lost students	• Suitable supervision • Student preparation and briefing • Use of buddy systems, regular meeting, head counts, identifiable clothing, small sub-groups • Emergency plan for lost student action
• Child Protection	• Supervision • Student preparation and briefing • Use of buddy systems • Appropriate choice of venue, transport, accommodation
• Illness or Injury	• First aid forms part of visit specific risk assessment • First aid and travel sickness equipment carried • Staff know how to contact emergency services at any point of the visit • Individual medical needs are planned for • Consent forms provide medical consent and essential information • School emergency contact and emergency planning in place
• Special needs of specific students – medical, behavioural, educational	• Information obtained from parents • Advice sought from SENCO, students doctor, as appropriate • Individual needs risk assessed as part of original plan
• Remote supervision	• See generic assessment on remote supervision
• Accompanying staff children	• Must be part of original visit approval • Must be suitably risk assessed – if not of same age as group separate supervision must be arranged • Must not compromise group supervision or the running of the visit

• Group behaviour, sex, alcohol, drugs.	• Expected standards of behaviour clearly agreed before visit • Arrangements in place for sending a student home early including supervision and finance • Students assessed as suitable for a particular visit by staff who know them

NOTES

- Any visit should have clear aims
- Pre-visits cannot be recommended too highly

The following should be considered:

- Ability and previous experience of accompanying staff.
- Age, ability and previous experience of young people/pupils.
- Swimming ability and water confidence if activity is in, on or near to water.
- Pupils with special needs, medical conditions or requiring particular attention.
- Staff to pupil ratio, defined groups and regular head counts.
- Communications between staff and back to school or base.
- Personal protective equipment available to pupils and staff, waterproofs, footwear etc.

- It is good practice to involve young people both in the risk assessment process and in the safety precautions to be followed.
- Accidents to young people, including several fatalities, highlight the need for great care in or near water. Particularly hazardous (and not allowed) is the unplanned entry into water by, for instance, a walking group on a hot day.
- Each excursion must be risk assessed on an individual basis any site specific assessments must be reviewed and not simply accepted. Recent accidents have occurred in parties lead by staff that has run incident free activity for many years.
- The risk assessment process is most important; the final assessment on paper should only be a record that reflects that process.

ACTIVITY	TRANSPORT
RATIOS	Derived from visit specific risk assessment
HAZARDS	**CONTROL MEASURES**
Hired Coach / Bus	• Coach hired from LEA approved company or from reputable firm with correct operators licence • Coaches fitted with seat belts which supervisory staff ensure are used • Buses without seatbelts should not be hired for sole use • Appropriate choice of locations for getting on and off the vehicle • Close supervision and head counts when getting on and off and after any breaks in the journey
Minibus	• Minibus correctly maintained and safety checked before use • Forward facing seats and seatbelts fitted and used • Driver appropriately licensed and on LEA database for driving authority vehicles • Luggage on roof does not exceed 100 kg • Luggage inside vehicle is securely stowed and clear of aisles • Any trailers used do not impede emergency exits from vehicle • EC requirements are understood and complied with if going abroad • Appropriate choice of locations for getting on and off the vehicle • Close supervision and head counts when getting on and off and after any breaks in the journey
Private vehicles	• Vehicles must be roadworthy and appropriate • Insurance must be appropriate • Driver to ensure seatbelts worn at all times • Parental permission obtained specifically for volunteer drivers
Service Station and other breaks	• Head counts when getting on and off. • Students briefed about purpose and timing of stop, appropriate behaviour, location of staff during break. • Appropriate supervision of walk to and from vehicle. • Use of 'buddy' system where students remain in pairs or threes when unaccompanied.
On foot	• Journey planned to avoid fast roads and dangerous junctions/crossings when possible • Students briefed about hazards and expected behaviour • Supervision appropriate to age of students and location
Public Transport	• Careful pre-planning including contingency plans for delays, cancellations or insufficient capacity for group. • Very close supervision in crowded areas and when getting on and off transport.

	• Head counts when getting on and off. • Contingency plan for missing student or some way of stopping vehicle leaving if student unaccounted for. • Large groups split into smaller groups each with own leader. Students to know their group and leader – leaders to know their group. • Younger students to wear identifiable clothing. • Emergency plan in place – students briefed where they are going and what to do if separated from group. • Younger students should carry written details of destination and of school contacts but should not wear obvious name badges.
Ferry Crossings	• Careful pre-planning including contingency plans for delays or cancellations. • Very close supervision in crowded areas, vehicle decks and when getting on and off ferry. • Head counts when getting on and off. • Students briefed about 'rules' especially re open deck areas, appropriate behaviour, and location of staff during crossing. • Meeting point agreed for crossing and on docking (numbered stairway for example). • Use of 'buddy' system where students remain in pairs or threes when unaccompanied. • Contingency plan for missing student – e.g. member of staff to leave as a foot passenger. • Emergency plan in place – students briefed where they are going and what to do if separated from group.
Flights	• Careful pre-planning including contingency plans for delays or cancellations. • Pre-booking to ensure a 'block' of seats on the plane. • Students briefed about appropriate behaviour. • Very close supervision in baggage reclaim areas, when passing through passport control or customs and when moving around the airport. • Appropriate supervision in terminal area and in departure lounge - use of 'buddy' system where students remain in pairs or threes when unaccompanied. Meeting points and times arranged. • Head counts when getting on and off. • Contingency plan for missing student. • Large groups split into smaller groups each with own leader. Students to know their group and leader – leaders to know their group. • Emergency plan in place – students briefed where they are going and what to do if separated from group.

NOTES

- It is good practise for younger students to wear easily identifiable clothing, badges or hats.
- Students **should not** wear any badge identifying them by name.
- Students should know details of their destination and of school contacts. It would be good practise for younger students to carry written details of these.

ACTIVITY	CAMPING
HAZARDS	• Slips, trips and falls. • Weather and ground conditions. • Lifting and carrying. • Burns and scalds. • Sickness/hygiene related illness. • Abuse/inappropriate contact with strangers.
RATIOS	1:15 plus another responsible adult, or as appropriate to summer or winter walking if camping in remote areas
QUALIFICATIONS	• BEL if lowland terrain, or suitably experienced. • WGL in Moorland/hill country. • Summer ML if in mountainous area. • Winter ML in winter conditions.

CONTROL MEASURES

- Detailed weather forecast.
- Serviceable tents, sleeping bags and ground insulation.
- Careful selection of campsite and arrangement of tents taking into consideration other users, management of camp, weather conditions.
- Careful briefing of students re what to do in an emergency, meeting point, location of staff tent.
- Suitable supervision of cooking reflecting experience, age and nature of group.
- Appropriate cooking equipment (Trangia type or self sealing gas cartridge stoves are most appropriate).
- No smoking in or next to tents.
- In remote areas, careful briefing regarding areas for drinking water, personal washing, washing dishes and visiting the toilet.
- Careful briefing emphasising the importance of personal hygiene and the implications of not following such advice.

NOTES

- There is a perceived risk of groups lowland camping being vulnerable to intrusion by unwanted visitors. This should not put staff off this activity as it is much more a perceived then real risk and can be controlled by site choice and management measures.
- Management of human waste should be appropriate to the area. This may be carrying out or it may be burying. Toilet paper should be burned and ashes buried or carried out. It would be prudent to check best local practise prior to the trip.
- Perhaps the greatest hazard is of fire and the group leader should establish safety procedures and a risk assessment of which all campers are made aware.
- With fixed camps, the kitchen area is particularly at risk and should have its own water and sand buckets to hand.
- All containers of inflammable liquids should be so marked and safely stored. A recent serious accident highlighted the dangers of re-fuelling a 'Trangia' stove with methylated sprit whilst still alight. Meths containers are now available with a non-return valve and these must replace existing 'Sigg' bottles or any container used for re-fuelling without a non-return

valve.

- Only gas canisters with self-sealing valves should be used with gas lighting and gas stoves. Extreme caution should be exercised when changing canisters and this should only be done in the open air, and away from lit stoves.
- Adequate separation between tents is important.
- Prohibit running and ball games in the vicinity of stoves and tents.
- Cooking inside lightweight tents should be avoided whenever possible. If extreme circumstances made it essential then appropriate safeguards should be taken.
- Stoves should not be stored in sleeping areas in tents.

ACTIVITY	ORIENTEERING
HAZARDS	• Slips, trips and falls. • Cuts, scratches, abrasions. • Getting lost. • Traffic. • Abuse/inappropriate contact with strangers.
RATIOS	1:10 – 1:30 depending on location. In more advanced areas a second responsible adult would be recommended
QUALIFICATIONS	• In house training or BOF teacher/leader for school grounds and local park. • BOF Instructor for woodland, forest and larger areas.

CONTROL MEASURES

- Weather forecast.
- Appropriate venues. 'controlled' area with natural boundaries for beginners
- Appropriate protective clothing, long trousers and long sleeves for forest 'O'.
- Participants briefing
- Distinctive sound signal for 'return to base'.
- Participants have whistles, watches, and return to base times.
- Type of event to match venue and group ability.
- Groups of two or three initially, not a solo event from outset.

NOTES

- Star course events will give immediate feedback as to young people's ability and thus reduce the likelihood of getting lost.
- Briefings should include cut off times, emergency procedures, relocation strategy, out of bounds areas etc.
- Staffing and supervision plans should allow for safe supervision of the group at 'base' and those out on the course.

ACTIVITY	FIELDWORK
HAZARDS	• Slips, trips and falls. • Environmental issues - Falling objects, proximity to water. • Weather and ground conditions. • Diseases - Weil's, tetanus, Lyme disease. • Traffic. • Abuse/inappropriate contact with strangers.
RATIOS	1:15 dependent on year group, terrain etc.
QUALIFICATIONS	• Experience, group leader training, BELA. • WGL, ML or above if in appropriate terrain.

CONTROL MEASURES

- Party management appropriate to location.
- Local knowledge of coastal/river sites and individual risk assessment of each site.
- Detailed weather forecast including tide times for coastal locations.
- Extreme caution with river studies.
- Briefing re dangers of road traffic etc in urban fieldwork.
- Appropriate protective clothing and footwear (e.g. eye protection if using geology hammers, helmets for all participants near cliff areas).
- Plan B for adverse conditions.
- Participants trained in safe use of equipment.
- Remote supervision controls (see generic assessment on remote supervision) if appropriate.

NOTES

- A number of recent accidents and fatalities have reflected a total underestimation of the power of water and the effect of sudden immersion. River study and coastal sites should be carefully chosen beforehand and not used if water levels rise in a short period of time.
- Swimming / paddling should not take place unless pre-planned, risk assessed and parental consent given.
- The impact of fieldwork groups is an issue in more environmentally sensitive areas. The digging of soil pits and use of geology hammers on rocks for instance should be avoided, particularly in sensitive areas.

ACTIVITY	**UNACCOMPANIED ACTIVITIES – REMOTE SUPERVISION**
HAZARDS	• Getting lost. • Abuse/inappropriate contact with strangers. • Environmental hazards. • Inappropriate student behaviour. • Accidents.
RATIOS	Dependant on nature of activity
QUALIFICATIONS	• As for activity being undertaken plus previous experience of remote supervision

CONTROL MEASURES

- Appropriate group size / use of buddy system
- Groups must be assessed as suitable for the proposed activity.
- Staff knowledge of students and venue is vital.
- Clear geographical boundaries set.
- Appropriate behaviour standards agreed.
- Clear emergency briefing for all students including what to do if lost, frightened etc, where supervisory staff will be located.
- Clear timings set for activity and everyone aware of meeting points. Groups must have watches.
- Outdoor activity groups must have clear and concise instructions for emergency procedures and have emergency contact numbers. These in turn must be permanently manned by a person who has a clear idea of the necessary action to be taken.
- Groups should be self sufficient in any emergency equipment.

NOTES

- For walking groups it is good practice for each group member to have a waterproof card with contact numbers and the names of the other group members plus an emergency action plan.
- Mobile phones are frequently out of range in the hills and although useful at times, must thus be regarded as just another layer of cover.
- During residentials students should carry a card giving contact numbers and address of accommodation.
- DofE training and assessment expeditions must be approved via the DofE office

ACTIVITY	RESIDENTIAL VISIT ACCOMMODATION
HAZARDS	• Fire • Building/grounds fabric • Electricity and electrical appliances • Catering • Child protection • Lost students
RATIOS	1:10
QUALIFICATIONS	• Experience of residential visits

CONTROL MEASURES

- Check accommodation holds a fire certificate or is exempt and has a fire risk assessment and has had a recent inspection from a fire officer. (Abroad - ensure it meets national standards and assess safety before using).
- Staff inspection of fire precautions on arrival.
- Briefing of students on emergency procedures (if possible a fire practise on the first day should be held).
- Visual inspections of stairways, balconies, bath/shower facilities (preferably on a pre visit but if not then before use).
- Accommodation has electricity at work certificate
- All electrical appliances are marked as being in date portable appliance tested.
- Group has exclusive use of the sleeping accommodation (preferred) or at least all group rooms are adjacent. Staff accommodation is adjacent to students.
- Group accommodation is segregated by gender.
- Student rooms can be locked if necessary but staff can always gain access (master key system).
- Student rooms cannot be accessed from outside (ground floor windows, balconies with fire exits etc).
- External doors and windows are secure against intrusion – or main door is staffed by hotel staff 24 hours.
- Pupils know where staff will be throughout the night.
- Pupils are checked into rooms at “lights out”.
- Catering staff have food hygiene qualifications
- Students are not involved in catering or washing up unless this activity has been specifically risk assessed and is properly supervised.
- Students should be carefully briefed about boundaries for down time and timings / locations of meetings.
- Regular meetings for ‘head counts’ should be held.

NOTES

- A pre-visit to accommodation is always to be recommended to ensure its suitability for the proposed visit.
- If students are to go off under remote supervision they should have a card giving contact numbers and address of accommodation.

South Tyneside Council

Visit/Site Specific Risk Assessment Record Form Form EV2

By signing this form the risk assessor is confirming that they have followed the process outlined in the council's policy on educational visits and the residual risk has been reduced to an acceptable level.

Name of School / Centre/Project ..... Name of group leader .....

Visit to ..... Dates .....

Risk assessment carried out by ..... Signature ..... Date .....

Accepted by EVC Signature ..... Date .....

Significant hazards		Control measures

South Tyneside Council

South Tyneside Youth Service
-moving young people forward...

Risk Assessment Record continuation sheet

Visit to .....

Risk assessment carried out by .....

Significant hazards		Control measures

South Tyneside Council

South Tyneside Youth Service
-moving young people forward...

ROUTE CARD

START POINT.

FROM	TO	BEARING	DISTANCE	HEIGHT		DESCRIPTION OF GROUND	TIME
				GAINED	LOST		
TOTALS							

Escape Routes
Time Out
Time Back
Dark At

Additional Information

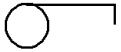
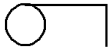
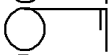
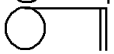
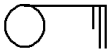
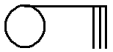
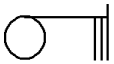
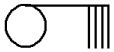
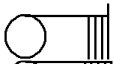
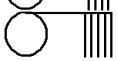
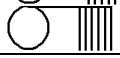
Group Members	Weather Forecast	Equipment in Group

Weather Forecast Recording Form

Wind	**Becoming**
Speed/Force mph/kph	**Becoming**
Est. at Alt.	**Becoming**
Direction	**Becoming**
Precipitation mm/in	**Becoming**
Temperature ^{0}c	**Becoming**
Sea Level	**Becoming**
Est. at Alt.	**Becoming**
Cloud Base	**Becoming**
Freezing Level	**Becoming**
Atmospheric Pressure mb/mm.hg.	**Becoming**
Outlook/Summary	

The forecast should be concise and to the point. Use abbreviations to save time when recording data. Other useful information, which can be included when completing your weather report, is tide times for coastal walks or causeways. Sunrise and sunset times, pollen count, air quality and any flood warnings

Beaufort Wind Scale

Beaufort N°.	Wind Speed (kn)	Wind Arrow	Brief Description	Observation on Land	Observation at Sea
Force 0	0-2		Calm	Smoke goes straight up	Mirror like sea
Force 1	1-3		Light air	Smoke blown	Ripples
Force 2	4-6		Light breeze	Leaves rustle	Small wavelets
Force 3	7-10		Gentle breeze	Leaves & twigs move	Large wavelets
Force 4	11-16		Moderate breeze	Dust blown up	Small waves some white horses
Force 5	17-21		Fresh breeze	Small trees move	Moderate waves many white horses
Force 6	22-27		Strong breeze	Large branches move	Large waves white foam & spray
Force 7	28-33		Near gale	Large trees sway	Sea heaps up foam blown in streaks
Force 8	34-40		Gale	Twigs break off	Crests of waves break foam blown in streaks
Force 9	41-47		Strong gale	Slates/tiles blown off	High waves
Force 10	48-55		Storm	Trees uprooted	V. high waves foam effects visibility
Force 11	55-61		Violent storm		
Force 12	62+		Hurricane		

The Combined Effect of the Wind & Ambient Air Temp.
The Wind Chill Factor

Wind Speed (kn)		5	10	15	20	25	30
Temperature ^{0}C		Effective Temp					
	8	7	4	2	0	-1	-3
	6	5	2	0	-2	-3	-4
	4	2	0	-3	-5	-7	-8
	2	0	-3	-5	-7	-9	-11
	0	-2	-5	-7	-10	-12	-13
	-2	-4	-9	-12	-15	-17	-19
	-4	-8	-12	-15	-17	-20	-21
	-6	-10	-14	-17	-20	-22	-24

Trangia Cooker – Guidelines for Safe Usage

The Trangia cooker is without a doubt the safest, simplest and most robust stove available. It is widely used around the world in all environments. The simple system makes it easy to look after and ensures that it works well in all weathers. There is nothing in a Trangia burner that can break.

Safety Brief.

- Always ensure that the flame is out and the burner is cool before handling or refuelling. This can be difficult to see in sunny conditions.
- Always refuel the burner away from tents or other combustible materials.
- Ensure that the fuel bottle is resealed and removed from the cooking area before lighting the burner.
- Always remove the windshield when refuelling.
- Always remove the windshield when fitting or adjusting the simmer ring.
- Never refuel the burner near another burning cooker or naked flame.
- When refuelling always use the hole in the fuel bottle cap. Do not completely remove the cap.
- When not in use, ensure that the fuel bottle is correctly sealed, away from the cooking area away from any heat source inc. direct sunlight. (min 5 metres) (when circumstances permit control of fuel by supervising staff)
- Never attempt to blow the burner flame out.
- Always use the panhandle to avoid burns. It is good practice to teach young people to always pick up pans using the handle, even when thought to be cold.

Remember

- When not in use the burner should be kept in a plastic bag. This protects the pans and avoids them being contaminated with fuel.
- Always empty excess fuel back into the fuel bottle. There is no need to burn off excess fuel.
- To use the simmer ring to conserve fuel and avoid welding food to the bottom of the pan.
- Use a lid to cover the pan when boiling water, it will boil quicker.
- Trangia pans should be cleaned after every meal as part of professional camp craft and to ensure sound hygiene.

Notes for supervising staff

There have been a number of instances concerning the use of Trangia's of which you should be aware. In each case lack of supervision and poor training was highlighted as a major cause.

- A primary school boy was seriously burned after refuelling from a ¼ filled bottle with a worn seal. He placed the bottle to the side of the burner not realising he had left a trail of fuel from the burner to the bottle. The bottle was laid on its side and continued to leak fuel. When he lit the burner the trail ignited and so did the fuel bottle. The vapour in the fuel bottle exploded covering the boy in burning meths and resulting in 75% burns.

    - Check the seal on the fuel bottle to ensure a good, air tight fit.

    - Make sure that once refuelling is complete the fuel bottle should be stored well away. Fuel bottles should not be stored lying down.

- A scout was injured when he refuelled an unlit but very hot burner. As he fuel hit the hot metal it flashed back causing burns to his face and arms.

    - Make sure that users check that not only is the burner out but that it has cooled. If they get into the practice of removing the burner from its holder to refuel it then this will always be the case.

    - If it is cool enough to handle, it is ok to refuel.

Supervisors should only allow groups or individuals to use cooking stoves after a period of training has taken place and the competency of groups is of a standard that is acceptable to the supervisor in charge.

Action to be taken if a group returns late from an adventurous activity