

# The Duke of Edinburgh's Award Expedition Course Notes

Name: .....



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# Navigation: Jargon Busting

**Leg:** This is a name for a section of your route. You will split your route into a number of different legs to write your route cards. When you come to walk your route you will mentally split it further down into much shorter legs to help you navigate accurately by forming a **strategy** for navigating each leg. At the end of each leg you will repeat the process. A leg could be as short as a few hundred meters or as long as a number of km depending on how complicated the terrain. In the mountains you may be following a path up a valley for 5km as a leg but in farm land you may need to identify a leg to just get to the other side of a farm yard.

**Handrails:** These are linear features that you can follow, they include paths, streams, ridges, crags, walls and if it is misty, a compass bearing.

**Tick Features:** Looking at the map, if you mentally move along a handrail make note of all the things you are going to pass. You may cross a wall, pass a tarn and end up at a sheepfold. All these points are tick features. Identifying tick features and mentally ticking them off as you walk past them is the key to fair weather navigation.

Be careful though as the wall may have fallen down the tarn may be dry and the sheepfold may have been dismantled.

**Catchments:** This is another name for a tick feature at which you have to stop to make a decision on where to go (usually at the end of a leg). For example, at a path junction.

**Overshoots:** If you miss your catchment (or if no catchment existed) then you may end up further along your handrail than intended. Having identified an overshoot (a recognisable, distinct, tick feature) further along the handrail you will hopefully notice that you've gone too far and can start to back track.

**Contour lines:** Contour lines are used in mapping to show the shape of the land by showing height above sea level.

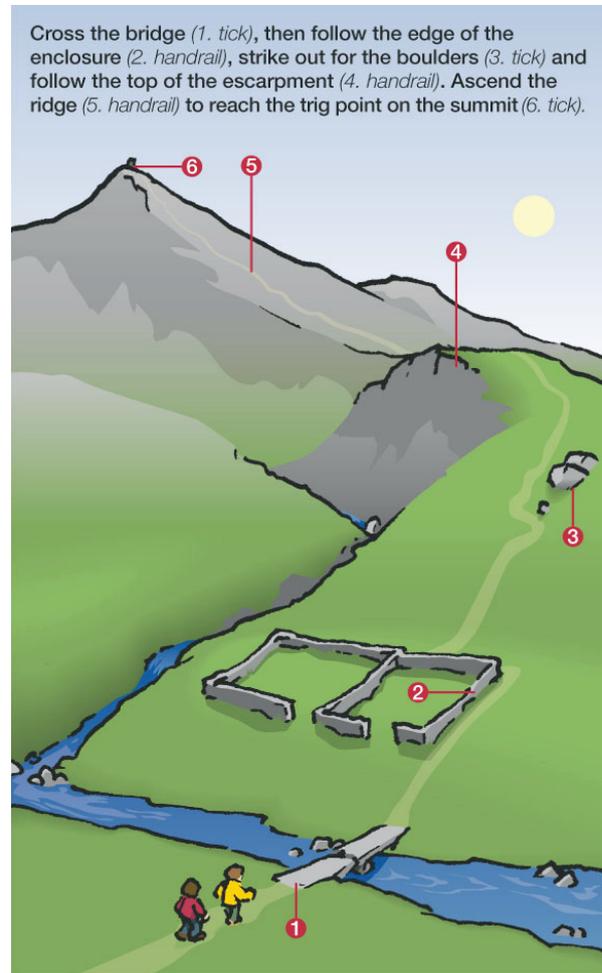


Illustration from 'Hill Walking' © MLTUUK VG 2003

# Navigation: Contour lines

Contour lines are used in mapping to represent the shape of the land. By interpreting them we get a three dimensional representation of what the terrain will look like. Each contour line connects different areas on the map that are at the same height above sea level.

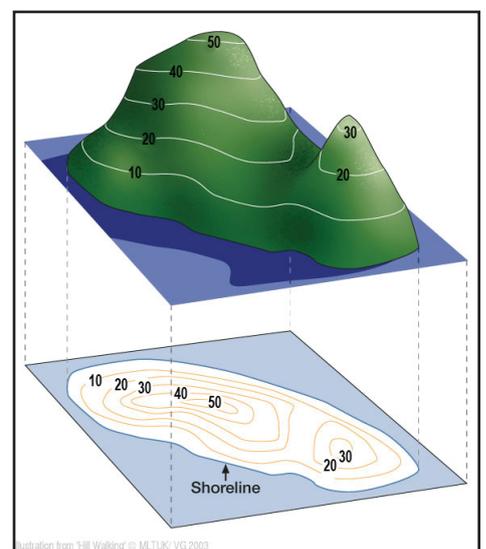
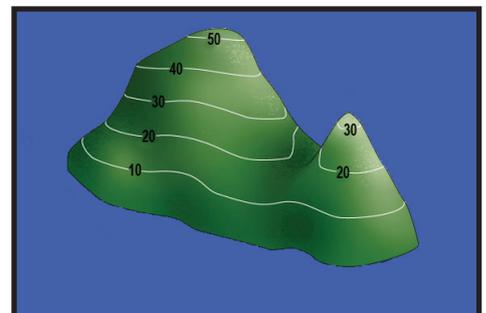
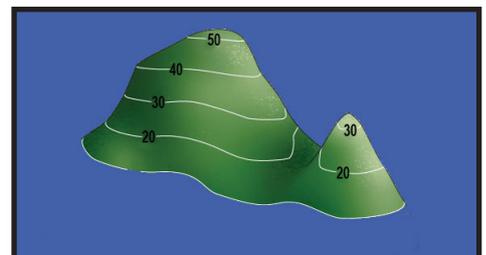
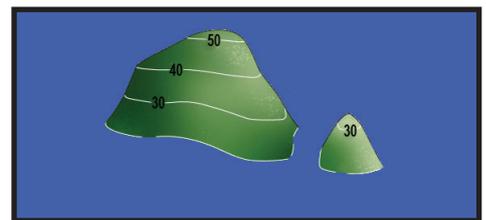
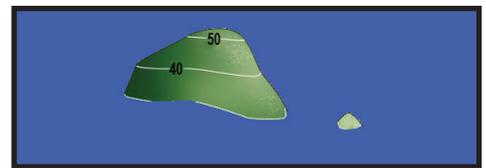
Look at the images on the right of this page, Imagine landing on the tiny island in the top picture and drawing a line around the sea level. Then the water drops by 10 metres and you draw around the new sea level. You continue to do this as the sea level drops by 10 metres each time. This shows the contour lines and in the final picture you can see a representation as it is shown on a map.

The 'contour interval' is the difference in elevation represented by each contour line. In the UK, common contour intervals are 5,10 or 15 metres. Most maps used by DofE groups will be every 5 metres in flatter areas of the country and 10 metres in the hills and mountains.

When **planning** your expedition, contour lines tell you if you will be going up or down hill and how steep the slope will be. Most people add 30 seconds to a minute on to their time with every 10 metres they climb when going up hill.

**It is hard to overstate the importance of contours** when navigating using a map. It is often said that they are the only thing on the map that you can really rely on. Walls deteriorate and become overgrown, footpaths move, tarns are sometimes dry.

Contours can be used as tick features, catchments and overshoots. Whenever you are looking for features to describe you leg on the map, include some contour features. For example, when walking along your handrail think what the shape of the land will look like. It may be fairly flat for a kilometre then a steep drop appears on the right followed by a ring contour to the left. Some people take to interpreting contour lines really easily, for most it takes a very long time. Expect to spend the next couple of years honing your skills.



# Navigation: Forming a Strategy

There are a number of different strategies that you could use to navigate your leg. If it is very difficult and intricate then you may stick your thumb where you are on the map and literally walk along looking at your map until you get to the end of the complexity.

Most of the time you won't need to be so immersed in the map but to enable you to navigate and still have fun and chat to people you need a different sort of strategy. For this we use a strategy that we call the 5 D's.

For each leg you will need to convert the information that you have from the map into information that you can work with to help you navigate on the ground. A good way to do this is to identify 5 things about the leg (all of which begin with the letter D).

- 1) **Destination** - What will it look like when you have reached the end of the leg.
- 2) **Description** - Describe the leg using handrails and tick features.
- 3) **Distance / Duration**. How long will it take to walk the leg and roughly how long will it take to reach each tick feature.
- 4) **Direction** - In which direction do you need to walk. Usually this will be obvious as it will follow on from your previous leg, but if there has been a change in direction from the previous leg you may need to set the map or take a bearing.
- 5) **Dangers** - Are there any navigational or physical dangers that you may encounter.

Before you start walking on each leg you need to identify your 5 D's. You could split the task so that each member of the team is responsible for 1 of the D's or the members of the team with a map could, between them, identify the five D's and then brief the whole group. At the very least the whole group need to know what you



are going to see and when you are going to see it. In this way the whole group have a responsibility to point out these tick features as you progress along the route. When you get to your destination (the end of your navigational leg) you must stop and repeat the process not just continue on without forming your new strategy.

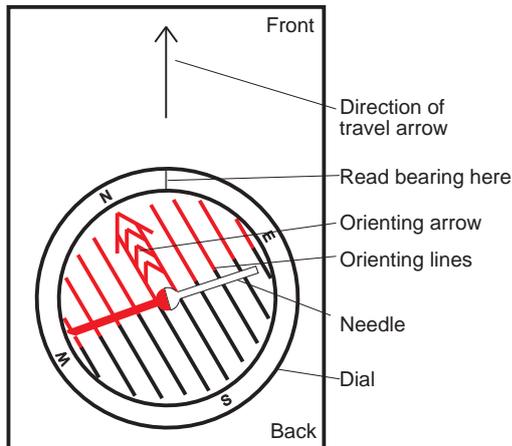
**You must always have a strategy.**

At all times the **entire** team must know

- 1) What you are expecting to pass, cross or see.
- 2) Roughly when you are expecting to pass, cross or see it.

# Navigation: The Compass

A compass can tell us which direction we are facing. It does this by use of the planet's magnetic field. If you turn the dial of a compass so that the letter E is at the top then, turn the whole compass so that the magnetic needle is sitting in the red 'orientating arrow' then the 'Direction of Travel' arrow will be pointing East.



By convention we measure compass bearings in degrees with North at 0°. As there are 360 degrees in a circle that means that East is 90° South 180° and West 270°.

If we are on top of a hill then we may need to work out which direction to walk off. We could look at the map and guess what angle the path we want sits at and then set the compass to that

bearing. Or, if we want to be more accurate we can use the compass as a protractor to read an exact bearing from the map.

## Taking a bearing from the map.

Let's assume we want to work out the bearing between two points so we can walk in a direct line between them, A - B.

### 1) Make an estimate

Have a guess at the direction in which you will be walking (roughly North-East or 45 degrees in the example on the right). By making an estimate you should avoid the embarrassment of being 180 degrees out. Set your compass to this estimate now.

### 2) Position the compass

Place the long edge of the compass along the path that you need to follow with the big (direction of travel) arrow pointing in the direction you will be walking i.e. the back of the compass should be at point A and the front at point B.

### 3) Turn the dial

Turn the dial so the orientating arrow is pointing up the map, parallel with the grid lines (ignore the needle). You should end up with a figure similar to what you estimated in step one. If it is vastly different you are probably 90, 180 or 270 degrees out.

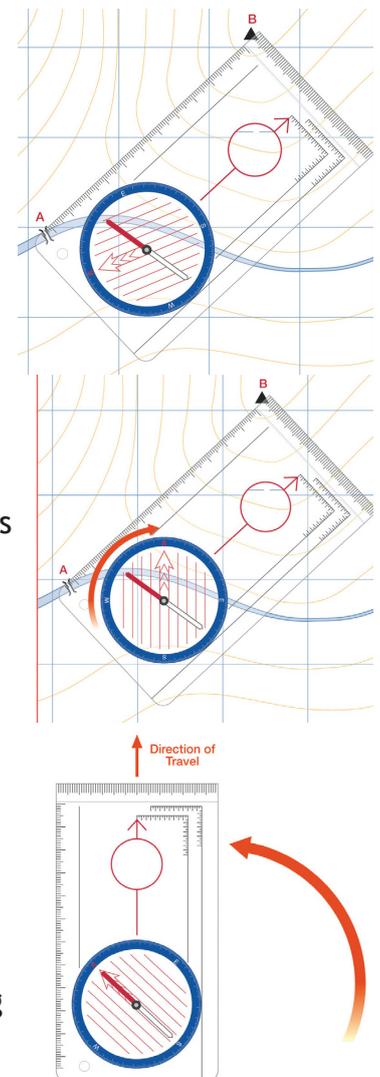
### 4) Add the magnetic variation

### 5) Align the needle

Take the compass off the map and line up the magnetic needle and the orientating arrow by holding the compass flat and turning yourself round on the spot.

### 6) Follow the direction of travel arrow

The 'direction of travel' arrow will point in the direction you need to walk in.



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# Navigation: Magnetic Variation

In the UK we don't have to worry about this for the time being as the magnetic variation is so small. In other parts of the world (and in the UK in future) it is / will be a major consideration.



Figure 1: UK With some vertical grid lines.

The compass can be seen as a tool for converting directional information from the earth to the map and vice-versa. However, with this conversion there is an error.

Before we start there are 2 things you have to understand;

- 1) The grid lines on the map are NOT lines of Longitude. Lines of longitude converge at the North Pole. These grid lines are exactly 1km x 1km square. Each north-south grid line therefore points to a different place and not to the North Pole.
- 2) The magnet on the compass needle doesn't point to the North Pole either but somewhere in the Canadian Arctic.

As our system of grid lines does not match up to the earth's magnetic field, to convert from the bearing gained from the map to one that you follow on the ground you have to make an adjustment. This is the magnetic variation.

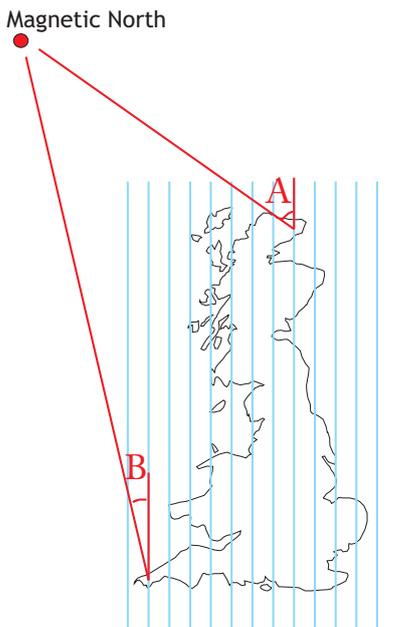


Figure 2: Magnetic variation is different in different parts of the country.

It gets more complicated. As each grid line points to a 'different north' but the needle on the compass always points to the same place, the variation is different depending on where in the UK you are. Figure 2 shows (in a vastly exaggerated form) that if you are in the South West the magnetic variation is smaller than if you are in the North East. Angle B is less than Angle A.

It gets worse. Magnetic north is moving. Magnetic north is moving about 35 miles a year to the east and therefore the difference is declining. Back in 2004 it was  $5^\circ$  in Cumbria. By 2010 it had reduced to  $2^\circ$ . Currently (2020) magnetic north is passing over the UK so the variation is so small we don't need to worry about it.

To find out what the magnetic variation is where you are you have to look at the notes on a map. It will say something like. **Magnetic north** (make sure you are reading the bit about Magnetic North and not True North) is estimated at  $2^\circ 24'$  West of grid north at the centre of the sheet for July 2009. Annual change is approximately  $10'$  East.

So if it is July 2009 you know that you have to add  $2.5^\circ$  and it is moving a degree every 6 years (there are  $60'$  in a degree) so in 2015 you will add  $1.5^\circ$ . In reality you never really add half a degree as our compasses only have increments in  $2^\circ$ .

## Navigation: Relocation when Lost

There will be times when you are not sure where you are. The key to good navigation is observation. When you are walking, keep looking around you. Keep a mental note of ALL tick features that you pass, not just the ones you identified from the map at the beginning of the leg.

Once you realise you are not sure where you are there are a few steps to go through.

### 1) Stop.

Don't look at the map yet, take a look around you to see if there are features that you will be probably be able to see on the map. A tarn or a ring contour for instance. You may be able to take a bearing on your path or down a valley.

### 2) Where were you when you last knew where you were?

How long ago was that? What direction have you been walking in since then? How far might you have walked in that time? What have you passed since and when?

### 3) Put all that together with what you can see on the map.

This is the tricky bit. It is a good idea to start with where you last knew where you were and work forwards following your route recalling what you passed (note: the route you took may be different from the route you were meant to take). All being well you should be able to identify your position with ease using the features you identified in step 1. Be very aware of the tendency to make things fit with what you can see when they don't in real life. Pay particular attention to scale.

## What if that doesn't work?

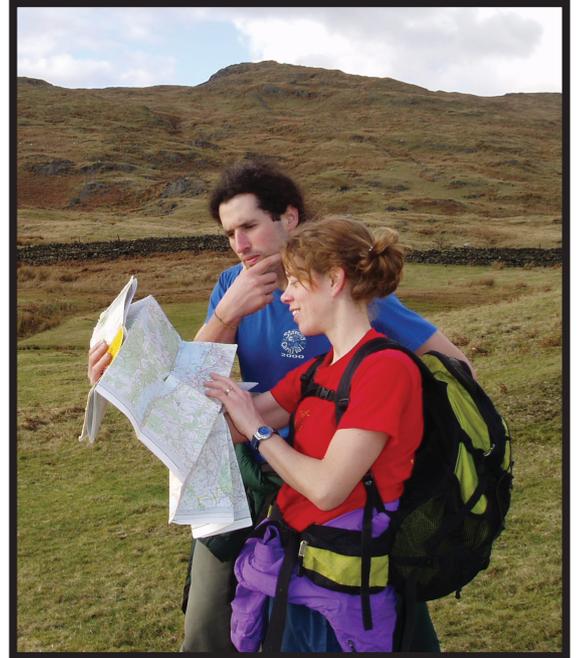
If you are getting nowhere you may wish to consider one of the following courses of action

1) Move around a bit to see if you can see more helpful features. Don't go far but moving a short distance will often reveal new features.

2) Back tracking to a place that you knew where you were.

Learning how to relocate is more about looking around you rather than looking at the map. When lost, inexperienced navigators tend to start studying the map intently looking for clues. It is easy to be 10 meters from a tarn and not be able to see it if you are slightly below it. However, if you can see a tarn on the ground (and it is big enough) then it will be on the map.

**Look around first, look at the map second.**



# First Aid and Emergencies: First Aid



With a little care the injuries below are often avoidable. Preventing them is much better than having to provide treatment. It is very rare to have a serious injury.

## 1) Blisters.

These are an irritation that can stop you completing an expedition if they become serious

**Prevention:** Wear well fitting boots and suitable socks. Try and keep your feet and socks dry.

**Treatment:** Apply a plaster, preferably a blister plaster, as soon as a sore spot develops. If a blister develops, do not burst it, but keep it covered with a blister plaster.

## 2) Burns and Scalds.

**Prevention:** Use stoves sensibly. No smoking or naked flames in or near the tent. Protect against sunburn.

**Treatment:** Run cold water over the burn for at least 20 minutes. On campsites there should be a tap, out walking you might be able to fill a bowl or a bag with water and immerse the burn in it, pour water from a bottle or dunk the affected part in a stream (if it is safe to do so). Take care not to get clothing or unaffected areas too wet (see hypothermia). After cold water treatment cover the burn with a clean, smooth dressing.

Call your supervisor immediately if you suffer a burn or scald of any size. Call 999 if a burn covers a large area, involves charring of the skin or could affect the airway.

## 3) Breaks and Strains.

This is probably the most common type of injury, especially in the outdoors.

**Prevention:** Wear good boots. Take special care when it is slippery, steep or uneven underfoot.

**Treatment:** Treat as a suspected fracture: Rest, Cool, Compress and Elevate as appropriate.

Call your supervisor if you have any such injury which may make it too painful to continue. Call 999 if you suspect any break to the femur (upper leg), skull, pelvis, neck or back.



Resting and cooling an ankle injury

### First Aid Kits

If you are borrowing a first aid kit take a look inside before your expedition to make sure you know how to use its contents and it has everything you may need.

#### 4) Hypothermia.

This is most likely in cold, wet and windy conditions. Illness and fatigue also increase the risk. Symptoms include complaining of cold, becoming less communicative, disorientation and loss of co-ordination.

**Prevention:** Wear warm, waterproof and windproof clothes as appropriate. Get sufficient rest and food. Early detection is important as treating mild hypothermia is quicker and easier than severe hypothermia. It is hard to detect in yourself so get into buddy pairs look out for each other, especially if the weather starts to deteriorate.

**Treatment:** Hypothermia can be thought of as cold exhaustion so you treat the exhaustion and treat the cold. 1) Exhaustion: Get energy in (feed with sugar), take their bag off them. 2) Cold: Keep them moving (in early stages) to generate heat, get them to shelter to remove wet clothing and replace with warm, dry clothes. If there is no shelter then pile warm, dry clothes over the top of the wet ones. If severe then put up tents and get in them. Get help.



**Resting in the shade of some trees**

#### 5) Heat Exhaustion.

Heat exhaustion can occur due to loss of salt and water through sweating. Symptoms may include headache, dizziness, confusion, nausea, sweating with pale clammy skin, cramps and rapid weak breathing.

**Prevention:** Eat, drink and rest appropriately. Wear appropriate clothing.

**Treatment:** Get to a cool place or create some shade if this is not an option. Consider splashing water on exposed skin and fanning. Drink plenty of water, preferably followed by some water with a little salt in it or flat lemonade. Call your supervisor.

#### 6) Dehydration.

Symptoms include feeling thirsty, very concentrated yellow urine, tiredness, disorientation, vomiting.

**Prevention:** Drink plenty of water, or water with fruit juice. A good idea is to drink lots when you arrive at a campsite, and again before you leave it, as you will have plenty of water on the sites, then top up from your bottle during the day.

**Treatment:** Basically drink. If you are suffering severe dehydration you will need to rest and drink small amounts of water at a time to prevent more vomiting.

**All first aid incidents, however small, must be reported to your supervisor.**

In the case of minor incidents you may wish to inform them later in the day, when you see them next, but you should call them immediately if:

- An incident is serious enough that you are unable to continue walking, or
- You have to call 999, or
- You are in doubt about whether or not you should call them.

# First Aid and Emergencies: Emergency Procedures

## Evaluate the situation

Apply first aid if necessary.

Do you need help? If so do you need help from our staff or the Emergency Services?

If you don't need help do you still need to try to contact your supervisor?  
(For instance: Are you going to be late or even not get to your campsite and just camp where you are.)

If you are lost then making sure you are on a footpath (any footpath) will speed up our ability to find you. If you have to do an emergency wild camp then do all you can to do so on a footpath.

## Calling the Emergency services

If you decide to call the Emergency services from your location do so by calling 999. Even if you have no signal it often still works. If you require the services of mountain rescue (i.e. if the casualty is in a remote situation) ask for the police and tell **them** that you need mountain rescue.

Be ready to tell them.

- 1) Number and type of casualties.
- 2) Where you are, a grid reference or as close as possible.
- 3) What your phone number is.
- 4) Our contact details and ask them to contact us (assuming you cannot do so yourself).

As we are in the area it is entirely possible that we will be able to get to you sooner.

## Sending for Help

If you do not have phone reception you may have to send part of your group to get help

- 1) Decide where to go for help.

Make sure the people staying know where you have gone. You may elect to go somewhere to find phone signal or to the nearest house.

- 2) Write down all important information.
- 3) Make sure there are two of you going together.
- 4) Take enough equipment to ensure your safety.
- 5) Don't rush.

When you get in contact with us or the emergency services, get clear instruction on what you should do next.



## Waiting for help

Once you have decided that you need help on the hillside you need to prepare for a potentially long wait for us or the emergency services to get to you. There is a lot you can do to make things more comfortable and to pass the time.

### 1) Keep someone with any casualties at all times.

Look specifically for signs of shock and hypothermia.

### 2) Keep checking on each other, is everyone warm enough?

### 3) Every few minutes blow your whistle (six long blasts).

### 4) Consider putting up a tent or two.

You will probably be in the same place for a number of hours waiting for help to arrive.

### 5) Consider getting someone to make a brew.

Hot drinks will help you keep warm and are great for morale.

### 6) Once things have settled down and you have the time, write a log of events.

Time of incident, time of phone calls, changes in casualty condition, first cup of tea, tents up. It will help you keep time in perspective.



**This image depicts an emergency procedure role play.**

These 3 have put up a tent to offer a more comfortable (warm and dry) area to wait for assistance

This person is sorting out the equipment that they are going to take when 2 of them go to raise the alarm

Under another tent fly sheet is the casualty and 2 other member of the team. The fly sheet is to keep the wind and rain off

The casualty has been insulated from the ground using a roll mat

# First Aid and Emergencies: Ticks and Lyme Disease

## What is Lyme disease and what are its symptoms?

Lyme disease is an infectious disease transmitted by the bite of an infected tick (Not all ticks carry Lyme disease). It causes a wide range of symptoms which may include a circular red "bull's eye" rash, headaches, a stiff neck, facial palsy, extreme fatigue, muscle and joint pain, and disturbances of sight, hearing, co-ordination, digestive system and sleep. If not treated promptly it can have painful and debilitating, long-term effects.

## What are ticks?

Ticks are blood-sucking arthropods related to spiders. Their initial bite does not hurt or itch.

## Where are ticks found?

Ticks can be found all over the UK in gardens, woods, moors, and parks - City parks being no exception.

## How should a tick be removed?

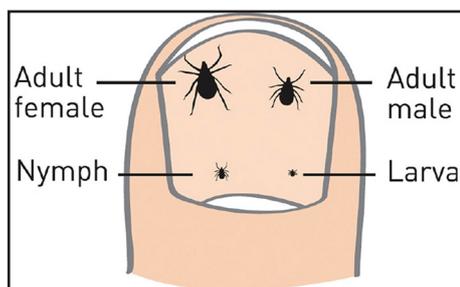
Ticks should be removed as soon as possible, the risk of infection is greater the longer the tick remains attached. The tick should preferably be removed with a tick removal tool which hooks underneath the tick and which does not risk squashing it. In an emergency, a thread of cotton can be wound close to the skin, and pulled upwards. Disinfect the area around the bite using antiseptic cream.

## How is Lyme disease diagnosed?

The symptoms mentioned above may appear between 2 and 30 days after a tick bite. Although a rash may appear quite shortly after the bite. A GP can take a blood test though it may be negative in the first few weeks after the bite. The rash should be treated immediately without waiting for a test result.

## Can Lyme disease be prevented?

Preventative measures include wearing suitable clothing (keeping arms and legs covered, if practicable), treating clothing with a repellent (Lifesystems EX4 Permethrin spray anecdotally works) & frequently checking the skin for ticks. It is important to know how to remove a tick properly and to seek medical advice promptly if any symptoms appear.



Typical "Bull's eye" rash on foot



Typical "Bull's eye" rash on arm

# Equipment: Packing a Rucksack

Much of packing a rucksack is down to personal preference. Here are some things to bear in mind which should make life easier and load carrying easier.

There are two basic principles that you will want to follow when packing your rucksack, unfortunately the two principles sometimes conflict but do your best.

## **Principle 1: Heavy items should be close to your back, evenly weighted (side to side) and near the top.**

For instance, Place a heavy item like your tent under the lid rather than on the straps on the bottom at the back.

## **Principle 2: Items you may need should be accessible.**

Pack your snacks, lunch, drinks, waterproofs, hat, gloves, torch, etc. near the top of the bag or in the outer pockets.

## **Other considerations, tips and tricks**

### **The sleeping bag.**

Pack the sleeping bag at the bottom of the rucksack. You will not need it during the day and you can then sit on the bottom of your rucksack without breaking anything.

### **Keeping things dry.**

Everything in your rucksack must be in waterproof bags! You could use a big waterproof liner (heavy duty rubble sacks or bin bags) or you could put everything in lots of carrier bags. Your sleeping bag stuff sack is **not** waterproof. Some rucksack have a rain cover, do not rely on this as it will fail in persistent rain.

### **Attaching things to the outside of the bag.**

As sleeping mats are so light they can be attached anywhere on the bag. It is best not to attach anything else to the outside of the bag - heavier items will make the load unbalanced and smaller items might get lost or damaged. You also look a lot more slick and together if you haven't got a pair of flip flops or a mug hanging off your bag.

### **Rucksack weight.**

Your bag should weigh no more than 1/4 your body weight. If it does weigh more then think about what you could remove, consider spreading the load more proportionally amongst your team.

### **Fitting and putting on your rucksack.**

A well fitted rucksack will actually feel lighter. Get used to the routine of adjusting your pack every time you put it on. When putting your rucksack on avoid picking it up by one strap and swinging it onto your back as you may damage the rucksack and your back. Help each other out by lifting each other's bags up while you put them on.



# Equipment: Footwear and Clothing

Undertaking a Duke of Edinburgh’s Award expedition is an accessible activity that doesn’t require too much specialist kit. There’s no single way to dress well for expeditions and lots of scope for personal preference.

## T-shirts, jumpers and trousers

Layering of synthetic fabrics, common in all sorts of sportswear, are good for base and mid-layers. Keep yourself comfortable by adding and removing layers as you heat up or cool down. A good way to tell if t-shirts or trousers will be good to wear is to find out how wet they are when they come out of the washing machine, go for the driest ones.

| Good choices   | Poor choices  |
|--|---|
| Synthetic thermal tops<br>Synthetic ‘technical’ sports t-shirts<br>Synthetic tracksuit trousers or leggings<br>Fleece jumpers or jackets<br>Soft shell jackets and trousers<br>If you prefer natural fibres, “smart” merino wool is good (though expensive) for thermal layers | Cotton T-shirts<br>Denim or cotton canvas jeans<br>Cotton hoodies |

These items can often be picked up inexpensively from shops like Mountain Warehouse, Go Outdoors, Trespass, TK Max as well as charity shops.

If the weather might be hot then avoiding vests and strappy tops is important to prevent sunburn. You might be in the sun for much longer than you are used to. Wearing a hat along with a shirt with a collar, or a bandana / Buff will protect your head and neck.

## Footwear

On Bronze expeditions appropriate footwear **could** be trainers or ‘rugged fashion boots’ (e.g. Timberland, CAT etc.\*) so long as you’re happy for them to get wet and dirty. Canvas pumps or baseball shoes aren’t up to it though, they are not at all waterproof and don’t have enough grip. If you are unsure, check with your supervisor before the expedition.



Having said all that, boots are the better option. Fabric and suede walking boots (suitable for Bronze and Silver expeditions), can be bought for less than £50.

When choosing your footwear consider the following points;

- **Grip** - There needs to be enough tread on the sole to prevent slips.
- **Fit/support/protection** - A good fit offers support and prevents blisters. Ankle support will offer some protection against twists and sprains and heavy duty uppers will protect from bumps to the top of the foot.
- **Condition/wear** - Your footwear will take a battering so make sure there are no holes, signs of seams splitting, laces snapping or soles detaching or wearing out.
- **Water resistance** - If it is going to be wet you really need to have water resistant footwear. Having wet feet can be a big sapper of morale and cause of blisters.

## Socks

Well fitting, specialist walking socks (Bridgedale is a commonly used brand) can make boots much more comfortable to wear. Avoid creases when putting them on. Some people wear only one pair at a time, others wear two. Two pairs of socks may help prevent blisters by reducing rubbing on your foot. Any sock movement of the thicker outer sock slides across the usually thinner, inner pair rather than rubbing against your foot. It is best to have a clean pair next to your skin at the beginning of each day.

## Waterproofs

- **Waterproof fabrics:** Thin, PU-coated nylon “pac-a-macs” might be only just OK for Bronze expeditions (in lowland countryside). They’re reasonably water resistant, when new, but don’t protect from driving wind and rain. Something thicker is more appropriate. A breathable, laminated fabric is a good indication of fitness for purpose.
- **Seams:** Taped seams are also a good indication of fitness for purpose. Taped seams are usually paired with effective waterproof fabrics. Check inside your jacket to see if you can see a tape over all the stitching (this may be difficult to see if the jacket is lined.)
- **A hood:** Waterproofs should have a hood that closes around the face perhaps by studded flaps, Velcro or drawstrings (also at cuffs, waists and hems).
- **Waterproof trousers:** You need to pack over-trousers. These can be lighter than the jacket. It may be that they’re only worn in an emergency, but a good fit and adjustable waist makes them more comfortable to walk in. Side zips up from the ankles make them easier to get on over boots. If the side zip is short then keep a plastic bag in the pocket to put over your boot when you put them on then they will slide on easily.



Taped Seams

Clothing you already own might be OK. A ‘fashion jacket’ might be bulky and heavy but can offer reasonable protection. Check with your supervisor before the expedition. Participants sometimes turn up in down “puffa” jackets as their waterproofs. These are not appropriate. And remember that SuperDry is a brand, not a measure of waterproofness, not all their kit is waterproof.

## Hat and gloves

A hat that offers a good balance between warmth and protection from the sun is great. A peaked cap paired with a Buff might be the ideal combo. Having cold hands is unpleasant and might lead you to walking with your hands in your pockets meaning that you can’t use them to protect you if you trip up. Pack a pair of gloves, if you lose them and find you need some, use socks as mittens.

\*References to brands in this article are for illustration purposes and are not intended as an endorsement for their products.

## Equipment: Looking after your tent

The popularity of festivals and the cheap 'disposable' tent has meant that many people don't know how to look after them properly. Our tents are used as much high up

in the mountains in foul weather as they are in the sheltered valleys. They should be thought of not merely as tents but expensive and important emergency equipment. While you may be camping on a campsite in the Dales in August the next time your tent is used it may be in gale force winds on a mountain in a Scottish winter. Treat it well.

### 1) Before pitching - Check the site for stones and sharp twigs.

These will not only make your night more uncomfortable but may puncture the groundsheet and then let water in.

### 2) Don't lose the bags.

As soon as you take the tent, poles or pegs out of their bags put the bags in your pocket so they don't blow away. Once the tent is up put all these bags inside the tent.

### 3) Keep your tent clean.

Take your shoes off, try not to get mud on the side of the tent. Always tie back the doors when they are open. If a tent gets dirty this negatively effects its waterproofing.

### 4) Use the zips.

If you open the tent by simply pulling on the material this will weaken the zips and may cause them to break. If your zips break you may be in for an uncomfortable night.

### 5) Allow the tent to ventilate.

If your tent has solid inner walls then it is important to keep the inner door open a little. If you don't then condensation from your breath will collect on the walls and make the inside of the tent, you and your sleeping bag damp. Even if it is cold a small gap will keep you dryer and therefore warmer.

### 6) Don't smoke or cook in or near the tents.

A tent can catch fire in seconds burning anyone or anything inside it. Do not under ANY circumstances cook or smoke in the tents.

### 7) Dry the tent when you get home.

ALWAYS take the tent out of its bag and hang it up to dry when you get home (even if you think it is dry). If you don't hang it up to air, it will rot and need replacing.



# Equipment: How to fold a tent

Folding a tent small enough to get in the tent bag is easy for 99% of tents (made up statistic). You just need to follow a few rules.

Much of what is hard is the final step of getting the rolled up tent into the bag and much of that difficulty is down to keeping a grip on the slippery thing. What we are doing is folding and rolling the tent to make the actual act of gripping it at the final stage easier.



Downloaded from lupineadventure.co.uk



**1) Prepare the inner tent first - Groundsheet side out:**

The groundsheet is the roughest, toughest part of the tent so it is therefore the grippiest bit so you want it on the outside. Most tents you will need to fold into thirds or quarters lengthways, use the bag to measure the optimum width of your fold.

**2) Make it shorter:**

After you have worked out how wide you want your folded tent to be you need to fold it to make it shorter. This folding is important later and will reduce the amount of rolling you have to do.



**3) Prepare the fly sheet:**

Do this how you want just make it the same width of the inner and quite a bit shorter.

**4) Place the fly sheet on the inner tent:**

You will notice from your folding that there is an open end and a folded end. Place the two open ends together. Notice how the fly sheet is shorter than the inner tent, this is important. If your fly sheet is the same length as the inner tent then it will be harder to keep hold of at the end.



'Folded' end - 'Open' end

**5) Grab your poles and roll your tent:**

Roll the tent slowly and tightly from the 'open end'. This is counter intuitive and will result in the tent filling with air as you roll it up. This is fine just roll slowly and it the air will escape. You should end up with a tightly rolled tent that is easy to keep a grip on (maybe even with one hand). If you were to roll from the folded end then the tent wont fill with air but you end up with a tent that is much harder to keep hold of.



**6) Put it in the bag:**  
And slide the pegs down the side.



We have a 4 minute YouTube Video on this. Search for our Channel or Scan the QR code.



## Equipment: Meths Trangia

1) **Never use the stove within 3 metres of any tent.**

2) **Give the pans a rinse.**  
If you can smell meths in the pans then it is a good idea to give them a quick clean.

3) **Always refuel away from the cooking area.**  
If the burner is too hot to handle then it is too hot to refill. Remember that meths can burn with a transparent flame so even if it looks empty, and you cannot see a flame, treat with care.

4) **Screw the fuel bottle cap down immediately after use.**  
If you forget to seal the bottle properly you can end up with meths leaking inside your bag and over your stuff. The best time to secure it is when it is in your hand.



5) **Position the burner in the base of the trangia and then light.**  
Do not hold the burner when lighting as you may spill meths when placing the burner back in the base.

6) **Bring a lighter and matches.**  
The trangia is easier to light with matches but you should bring a lighter too as matches become useless if they get wet.

7) **Use the handle to hold the pan when stirring.**  
(Though don't leave the handle on the pan).  
Holding the handle provides stability while stirring but if you leave the handle on the trangia it can get very hot.

8) **Don't attempt to blow out the Trangia.**  
If you attempt to blow out the flame then you can blow flaming meths at anything opposite you or even into your own face. Close the simmer ring and use the handle to carefully place it over the burner (do not use the screw top).

9) **Don't place the screw top on the burner until it is completely cool.**  
Inside the screw top is a rubber ring to stop it leaking. If you screw the cap on while the burner is still too hot it will melt this ring and meths will leak out into your bag.

10) **Place the burner in a sound plastic bag before packing it up.**

11) **Appoint a fuel safety monitor for each meal.**



## Equipment: Gas Trangia

- 1) **Never use the stove within 3 metres of any tent.**
- 2) **Set up the trangia.**  
Thread the pipe through the hole in the top of the base and out the side as shown (Right). Ensure the burner is properly seated or the fuel pre-heater pipe can melt your pans
- 3) **Attach the gas.**  
With all gas stoves using fuel of this type ensure that you do not 'cross thread' the burner when screwing the burner onto the gas.



- 4) **Smell for gas 10 seconds after attaching the burner to the canister.**

Do not light the burner until you have done this check. If you do miss this step then you may end up with a burning jet of gas escaping between the canister and the connecting pipe with no way of turning it off. If you do smell gas check that the valve is off and it is not cross threaded, then try to tighten the seal. If you cannot make a good seal then try a different canister. While all types of stove should fit on all brands of this type of gas canister some do not.



**Check that your gas canister works with your burner before your expedition.**

- 5) **Keep the gas canister upright.**  
If your canister falls over then liquid fuel can enter the pipe and cause flaring.
- 6) **Use the handle to hold the pan when stirring.**  
(Though don't leave the handle on the pan).  
Holding the handle provides stability while stirring but if you leave the handle on the trangia it can get very hot.
- 7) **Disconnect the gas canister.**  
When you have finished cooking, turn off the gas and then disconnect the burner from the canister. Leave the gas canister in the porch of your tent overnight, not in the sleeping area.



If you do end up with a burning jet of gas escaping between the burner connecting pipe and the canister what will you do?

## Food: Menu planning principles

When out walking, particularly on multi-day trips, it is important to make sure you eat enough to prevent exhaustion and the associated problems and dangers.

There are a few things to consider when menu planning. As usual some of these factors conflict with one another so it is up to you to consider what is best for you.

### 1) Weight.

You have to carry everything you eat once you get going, it is obviously in your best interest to make it as light as possible.

You shouldn't really consider taking tins or glass jars, However if you really, really like sardines and you know it will just make your day to have a tin then I suppose you could. Boil in the bag is heavier than dehydrated food.

Think about removing excess packaging but be careful not to remove cooking instructions you may want to refer to later.

### 2) Speed and ease of preparation.

If the weather is nice you may want to spend a bit of time relaxing on the campsite and cooking. If, however, it has been raining all day the last thing you are going to want to do is sit outside in the rain cooking.

Boil in the bag may be heavier than dried food but it is faster, easy to prepare and generally tastes better.

If you are buying pasta choose quick cook varieties, this will save both time and fuel. Consider practising cooking what you are going to cook at home on one hob.

### 3) Tastiness and variety.

You need your diet to be as varied as possible as eating the same thing every day can become really dull. I would try and get some fresh stuff in for the beginning of the trip and move onto the less tasty but longer life foods later.

### 4) Durability and longevity.

You need foods that will not be ruined or taste bad if they are squashed and won't leak out of any containers. If you have perishables make sure you are planning to eat them early and that you have a non-perishable equivalent for later in the expedition.

### 5) Calorific intake.

On expedition you will burn many more calories than usual. You should be aiming to eat something in the region of 3500 calories per day but this will vary from person to person.

### 6) When you get to the campsite.

When you get to the camp site you want to be eating as soon as possible. Have a snack as soon as you stop. Energy is replenished in the muscles much more effectively straight after exercise so eating immediately will give you more energy the next day. Next get your tent up in case it starts raining then start cooking your main meal.

### 7) Emergency rations.

Don't eat all your food on the last day. You must keep some back in case of emergency. Your assessor may well ask to see your emergency rations at the end.

# Food: Menu planning in practice

## Breakfast

You won't have to carry your first breakfast so make it a BIG breakfast. Consider going to cafe near your start point as a

team building exercise. After that go for cereal, sweet porridge, flapjack or anything high in energy from your lunch stash as lunch foods and breakfast foods are pretty much interchangeable. Early in your trip croissants are great as they are full of fat and it doesn't matter if they get squashed but eat them quick as they will go stale.

Make sure you are fully re-hydrated before you leave the camp each morning as anything you drink now you won't have to carry.



## Snacks / Lunch

Lunch shouldn't be an event but more a process. Eat little and often. Keep food in your pockets and snack throughout the day. Good snacking foods include packets of peanuts or fruit and nut mix, flapjack, energy bars, cereal bars.

If you stop for food some suggestions are oat cakes and pate (from a toothpaste like tube), heavy, stodgy cakes (for example Fruit cake, malt loaf, Jamaica cake), If you want to eat bread products choose flat bread like pitta bread or even tastier and longer lasting, tortillas.

Health food shops do loads of different dried fruits. You can get a dozen dried bananas in a pack about the size of a fist. Dried fruit is healthier and provides a slower release energy than chocolate and is pretty indestructible. Everyone should get into dried fruit for their expedition.

## Dinner

You want to get eating complex carbohydrate as soon as possible so skip your starter and get straight onto the main course. Noodles, pasta and rice all make good dinners, they are light weight, quick and easy to cook. They can be supplemented with other ingredients such as nuts, the odd carrot and packet sauces.

Many people choose boil in the bag foods. You can get a wide variety from outdoor shops and if you like curries you can get much cheaper and tastier ones from continental supermarkets. They are ready in minutes, create no washing up, generally taste pretty good and leave you with a pan of hot water to make a hot drink or soup with. The down side is that they are heavier to carry than dried foods.

After you have eaten your main course consider going back to your starter and making a cup-a-soup. Then you will be ready for desert.

## Drinks

It is essential to drink enough to avoid dehydration. Drinking enough water is possibly the simplest way to do this. Weak solutions of cordial are also good.



## On Expedition: Hazards and route planning

It is a dangerous world out there, full of all sorts of things that are exciting, fun and can injure you. When planning your route you should be aware of

potential dangers and consider ways that you can minimise risk. Some things, like farm houses with ferocious dogs, you can't really foresee, others you may be able to identify on the map and plan your route accordingly.

Some dangers you may wish to acknowledge and go there anyway, accepting an increased risk, others you may wish to avoid completely.

### 1) Water (streams, fords, stepping stones, lakes).

If you are crossing a stream you should use a bridge. Under no circumstances should you be wading through water. As a rule, if the water is deeper than the ankle of your boot then it is too deep. You may have chosen a



route that involves stepping stones, these should be treated with caution (especially when they are wet). Please don't go swimming in rivers or lakes, even if you have done so before on your own or with your family.

### 2) Falling down something (Shake holes, cliffs, mines).

On your map you may see cliffs, old mine workings, pot holes and areas of shake holes marked. Pay attention to these and under no circumstances decide to go exploring old mine workings.

### 3) Roads.

Avoid roads completely if possible, they are rubbish for walking on anyway. If you do need to cross a road or walk along a road for a short period then wait for everyone to catch up and gather together. Make sure everyone knows where you are going, what tick features you will pass and roughly how long it will take. Then execute the manoeuvre, in single file, as quickly and efficiently as possible. Don't chatter, concentrate. It is the reality that, even with all that dangerous countryside around, fast country roads and cars are probably your greatest threat.



### 4) Trips and falls.

Wear decent boots with a decent amount of tread (to give good grip). If you are unsure on the suitability of your planned footwear seek advice from your DofE leader or supervisor. Take particular care on steep or slippery ground.

### 5) The weather (hypothermia, lightning, flooding, hyperthermia, sunburn)

### 6) Farm animals.

Be aware of the potential dangers posed by farm animals.

## On Expedition: How to keep together

Within your team there will probably be differences in your natural walking speed. Some may be fast on the flat or particularly careful over rough ground. Some people are fast up hill but slow on the downs, some the other way round. It is important that you keep together so that you can all keep an eye on the wellbeing of your entire team and to stop anyone from getting separated and lost.

If someone gets left behind for much of the time then their morale can plummet creating a vicious circle. Being left at the back often leads to people not enjoying the expedition and then walking slower and slower. Keeping together is everyone's responsibility and is in everyone's interest. There are things that everyone can do to help make it happen.



### The team's responsibilities

- 1) Don't leave anyone at the back. People will walk faster if you are engaging them in conversation.
- 2) If you wait for someone don't just get up and move off when they arrive. A simple question of 'do you want to take 5 or just keep going' will usually result in a response of 'just keep going' but just being asked can make a massive difference to the morale of the slower walker.
- 3) Some people who are struggling prefer to walk at the front for a bit, others will feel more pressure if they are at the front so prefer not to set the pace, try mixing it up and see what works for your team.
- 4) Can you help in some practical way by re-distributing some of the kit from the slower member of the group, offering them walking poles or making sure they are fed and hydrated for example.

### The individual's responsibilities

- 1) If you are asked if you want to stop or just plod on then think if you really do need to stop.
- 2) Don't moan and complain unduly. If you are miserable to be with then people won't want to be with you and you will get left behind.
- 3) When you stop for a rest don't just switch off. Think about what will help you, do you need a snack or a drink? Will removing a jacket help? Do you need to replenish your pocketed snack supply? Get yourself sorted quickly during breaks and maybe give yourself a head start over the rest of the group.
- 4) Eat and drink. If you are feeling tired then it may be partly due to low fuel levels.
- 5) Think of other ways that you can help the team. If you are at the back then you are probably not doing much of the navigation. Maybe you can help out more at camp.

# On Expedition: Valley campsites

Campsites vary a lot; some have games rooms and cafes, others may be just a corner of a field with perhaps a toilet and cold tap in a nearby farmyard. Most are somewhere in between.

## Arriving on Site

The first thing to do is usually to find the campsite owner to say hello, find out where to camp and where the various facilities are (toilets, washing up, showers:if you are lucky).

After this there are 2 main things that always need doing. They are: putting up the tents, and cooking food. Some groups prefer to do one then the other but it is usually better to do both at the same time. Some of the group can put up the tents while the rest start preparing the meal. If anyone is feeling cold, tired or hungry then a good idea is for them to have a snack straight away.

## Establishing Camp

First, choose exactly where in your area your tent should go, you should consider:

- Shelter. If it is very windy you may want to try and pitch out of the wind for a better night's sleep.
- Other campers. Try and keep a reasonable gap between you and others.
- Slope. Try and find flat ground, if you can't then you will probably want to turn your tent so your head will be up hill.
- Ground conditions. You will want to avoid boggy areas or areas that may flood.



Your tent instructions might tell you which end to pitch into the wind. If in doubt pitch it with the door facing away from the wind. Make sure that anything that could blow away is secured. Put simply don't put anything down and don't unpack your rucksack outside of your tent. As soon as your tents are up get a rubbish bag sorted and then don't put any litter on the floor, you'll only have to pick it up again.

## While on the site

On some expeditions (gold especially), by the time you have put your tents up and eaten you will be ready for bed. Other times groups have taken cards, books, frisbees etc. to give them something to do. It is a good idea to review the next day's walk at this time, you could also work on your Team Goal / presentation while the group is all together.

## Striking Camp (AKA packing up)

Striking camp can sometimes be more challenging than it sounds, especially if the weather is bad. It is a good idea for the whole group to get up at the same time, have breakfast and then all pack up together. To help, try to get as much as possible ready the night before; leaving only the essentials for preparing breakfast and the last bit of packing for the morning.

Once your group is ready to leave, do a litter (and food waste) sweep of the area where you camped, where you cooked and downwind of these areas if it has been windy. Assessors will visit campsites after you have left to check that they are litter-free.

## On Expedition: Wild campsites

At gold level, some expeditions involve one or more wild camps on moorland or in the mountains. This is not a requirement of the award but is chosen by some groups who want the increased solitude and remoteness of a wild camp. Wild camping involves extra challenges in planning, organisation and staying safe, but it is worth it.

### Planning to wild camp

In England and Wales there is no legal right to wild camp (except on Dartmoor) so for the DofE you need to gain permission from the landowner. In Scotland you can camp in remote areas provided that you camp on land that is not used for any other purpose.

Your DofE supervisor will advise on whether wild camping is a realistic option for your expedition and on possible places to camp. You can also gain useful info

from the map; look for somewhere with a water source and the likelihood of a flat, non-boggy, spot. Wild campsites should be off the beaten track on remote hills over 600m, groups should be kept small and tents preferably of an unobtrusive colour. When you get to your spot you may have to change your plans if the planned campsite is not suitable.



You should be aware that it is often colder, windier and wetter in the mountains than in the nearby valleys; your tents, sleeping bags and clothing will need to be up to the task.

### When you arrive

Identify a good water source and also a suitable place for a latrine (see the country code page for advice on going to the toilet). While it is light your group should have a little explore to identify any hazards in the area (steep drops, deep pools etc.) and to see if you have phone signal anywhere nearby in case of emergency. Try to avoid trampling plants and moving rocks. Take all your litter and food scraps away and definitely don't light any fires. When wild camping you should follow a 'Leave no Trace' policy.

### Getting water

You will probably need to collect water from a stream, for the evening, the next morning, and to take on the next day's journey. You might want to take equipment for purifying it, such as tablets or an ultraviolet purifier.

Clean water is a valuable resource relied upon by many people living in the mountain regions. Contaminating the water with soap, washing up liquid, insect repellent etc, could kill local insect and plant life. Do not wash up or wash yourself in streams and dispose waste water well away from water courses (use eco-detergents).

Enjoy it! Wild camping is a unique way to experience being in some amazing places, and quite often to have the place to yourself after everyone else has gone home for the day. DofE expeditions are about solitude and independence, and you don't get much more of these things than when wild camping.

## On Expedition: Expeditioning in rural areas

The countryside is vulnerable to overuse and misuse by those of us who visit it. By taking a few precautions and following some common sense rules we can drastically minimise our impact on the environment.

### 1) Don't drop litter.

By litter we include not just paper and drinks bottles but also organic material such as orange peel and banana skins. These materials may take weeks or even months to rot down and look unsightly while they do.

### 2) Take care on roads.

Many country roads are narrow and cars often travel very fast on them. When you get to a road, stop. If you are navigating brief the rest of the group on how far you will be walking and where you will be turning off. Then lead off walking in single file. Generally you should walk on the right hand side of the road. However, if the road is very narrow it may be safer to cross to stay on the outside of any bends.

### 3) Leave gates as you find them.

If you open a gate make sure you close it properly behind you or livestock may escape. If a gate has been left open then you should leave it open unless it is obvious that it has been done so through the carelessness of others and leaving it open may endanger people or livestock (a field of cows next to a busy road for example).

### 4) Don't go to the toilet close to streams, lakes or any other watercourse.

There is a whole page on this later in the booklet.

### 5) Think about erosion.

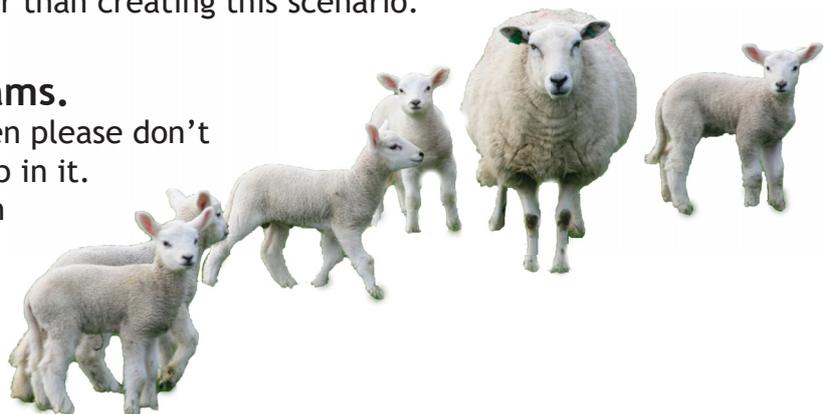
If you are on a thin footpath through a meadow (for example) then walking in single file on the path will cause less damage to area than spreading out next to each other. Most footpaths are wide enough for two but if they are not then please don't widen them.

### 6) Take care around animals.

This is especially true if they have young with them, this is as much for self preservation as animal welfare. It is not a good idea to walk between a cow and its calf. Leave the footpath to go round them rather than creating this scenario.

### 7) Don't wash up in streams.

If you cook close to a stream then please don't pollute the stream by washing up in it. If you need to wash up, fill a pan from the stream and take it away from the stream to do the washing up and pour the waste water into the ground.



## On Expedition: Leave no trace principles

You should be aware of the Country Code for general activity in the UK countryside and you should adhere to it while on expedition. However, the Leave No Trace Principles have wider relevance to making journeys in wild country worldwide.

### 1. Plan Ahead and Prepare

Know what's special about the area you'll visit including any special rules. Be well prepared, equipped and skilled for the journey. If you're uncomfortable you're less likely to manage your impact well. Carry bags or other containers for waste and laundry. Plan meals and - remove extra wrapping - to minimize waste & reduce weight.

### 2. Travel and Camp on Durable Surfaces

Durable surfaces include established trails and campsites - rock, gravel or dry grasses. Protect water habitats by camping at least 70m from lakes and streams.

**In popular areas:** Concentrate use on existing trails and campsites. Walk in the middle of the trail, even when it's wet or muddy.

**In pristine areas:** Spread out to prevent the creation of campsites and trails. Avoid places where impacts are just beginning.

### 3. Dispose of Waste Properly

Pack it in, pack it out. Even biodegradable items. Manage litter, don't let it blow about, put it straight in a pocket or waste bag. Check your campsite and rest areas for litter or spilled food and take it when you go. Consider fluffing up flattened vegetation.

To wash yourself or your dishes, carry water 70m away from streams and use small amounts of biodegradable soap. Strain and scatter dishwater. Pack out food fragments.

### 4. Leave What You Find

Preserve the past: look, but don't touch cultural or historic structures and artefacts. Leave natural objects as you find them. Don't build or dig structures or add to cairns.

### 5. Minimize Campfire Impacts

In the UK, almost always, restrict campfires to purpose-made fire pits on established campsites. Keep fires small. Burn only fallen or specially provided wood. Burn all wood to ash, put out campfires completely and remove all traces.

### 6. Respect Wildlife and Livestock

Observe wildlife and livestock from a distance. Do not follow or approach them. Never feed wild animals or livestock. Protect wildlife and your food by storing food and waste securely. Avoid wildlife during sensitive times: mating, nesting, raising young, or winter.

### 7. Be Considerate

Respect others and the quality of their experience or livelihood. Take breaks & camp away from other visitors. Let nature's sounds prevail. Avoid loud voices and other noises.

## On Expedition: Pees, poos and periods

It is guaranteed that at some point during your expedition that you will need to go, and there may not be a toilet nearby. We realise that this can cause anxiety. Being well-hydrated is essential when doing a physically-demanding activity like an expedition, never be tempted to skip drinks to avoid weeing - it can be really dangerous!

Pee, poo, paper and period products can also harm the environment if left in the wrong place, so follow the guidance below and make sure all paper, wipes and period products are carried out to a proper bin.

### Equipped and comfortable

The supplies you might need to feel hygienic and comfortable outdoors are quite personal, but consider carrying toilet paper, hand-sanitiser, your preferred period products and intimate wipes - suitable bags for carrying out any waste (for example a dog poo bag or strong sandwich bag) are essential. Pack these supplies somewhere it is easy to get to them and protect them from getting wet.

Think about the position you'll need to adopt when weeing and pooing to keep your clothes clean and dry. Bear in mind that once you start pooing you may end up weeing at the same time. It might be worth practicing squatting before your expedition!

### Where to wee

Look for a place which is a bit quieter and away from the path - and away from any streams or lakes. Always tell your group if you are going to go for a wee so they can wait in an appropriate place - or keep look-out if you prefer.

### Where to poo

Always try and go for a poo at your campsite or at home before you leave. Weeing regularly through the day may reduce the likelihood of needing a poo before camp. If you have to go, and there are no toilets, then you're going to have to bury it. It's best to carry a small trowel in the group. Poos normally take a bit longer than a wee so ensure there is a bit more privacy and you are in a quieter spot. You need to dig a hole 15cm deep and at least 70m from streams or lakes, camp, houses and paths. Once finished, bag up your toilet paper and fill in the hole. If you really can't bury it then current advice is to bag it and carry it out, or as a last resort, spread it out as thinly as possible (using a rock) to speed up its breakdown. Sanitising hands is important after a poo.

### Periods

Expecting your period on expedition can be an additional stress, try not to let it limit you! Stick with the products you usually use. Used tampons and sanitary towels need to be carried out; re-usable pads and period pants can be wrapped up and rinsed out when you reach camp. If you need to empty a menstrual cup it's best to bury this as you would a poo. The exertion of expedition can bring on periods unexpectedly - so it's best to come equipped (including pain relief) even if you are not expecting your period.

If you are very anxious about managing your period on expedition it is worth speaking to your doctor in advance, for people with difficult periods there are options for extra pain relief or even to delay a period. Expedition supervisors should always carry spare period products, so if you run short don't be afraid to ask for more.

## DofE Rules: Expedition Requirements

The expedition section has 15 requirements, most of them your DofE Leader will take care of in the planning of your programme but there are 5 that you need to be aware of.

- 1) Expeditions must have a clearly defined team goal - This could be researching an area of interest, contributing to a community action project, or developing soft skills.
- 2) Participants must plan an appropriate expedition menu, including cooking and eating a substantial hot meal each day (optional on the final day).
- 3) Participants must behave responsibly with respect for their team members, Leaders, landowners, the public and animals, and must understand and adhere to the Countryside, Scottish Outdoor Access, Highway and Water Sports Codes (as appropriate).
- 4) Expeditions must be unaccompanied and self-sufficient. The team must be properly equipped, and supervision must be carried out remotely, considering what is reasonably practicable for participants and ensuring their welfare is paramount.
- 5) Participants must actively participate in a debrief with their Assessor at the end of the expedition and, at Silver and Gold level, a presentation must be delivered after the expedition.

If, due to group safety or to ensure acceptable behaviour, we feel that we cannot leave you unaccompanied then your expedition cannot count as a qualifying expedition.

This really doesn't happen often, is rarely an out of the blue decision, and isn't anything to worry about so long as you are courteous, considerate and safe. Here are some examples of what could go wrong.

| The issue                               | Details  |
|---|--|
| Complaints from the public              | Please keep your disruption to others to a minimum both on your walk and especially at camp sites. When you turn up at a campsite introduce yourselves to your new neighbours. People are less likely to be annoyed by any late night noise if they like you and feel able to approach you about it. |
| Littering                               | We will check your campsites and often your lunch sites. Get a bag for litter sorted in your group immediately you start cooking. Make sure nothing is left outside your tent at night or when it is unattended. Always do a litter sweep after camping or having lunch.                             |
| Inability to navigate                   | If you cannot navigate safely then we will have to accompany you. We will help prepare you for another qualifying expedition. Everyone gets lost every now and then, this is nothing to worry about. If you are getting lost frequently then you need to pay more attention to the task in hand.     |
| Unsafe cooking procedure / fire hazards | Incidents around fire safety are rare but extremely serious when camping. If you are cooking then concentrate on the cooking. If others in your team are cooking don't fool around in that area.   |
| Buying food                             | You are not permitted to buy extra food on your expedition. Everything you eat and drink (except water) must be brought with you.  |
| Getting a lift                          | Your journeying between your start and end points each day must be by your own effort. It isn't permitted to call an Uber or ask your aunt, whose house you happen to pass, for a lift.  |

## DofE Rules: Team Goal

It is one of the expedition requirements that, on expedition, your team has a Team Goal.

Having a Team Goal will hopefully:-

1. Give the expedition more purpose;
2. Help you to learn more about the landscape you are passing through;
3. Encourage you to look around you rather than spend 3 or 4 days looking at the next metre in front of you;
4. To help you prepare a more insightful and interesting **presentation**.

Time spent on your Team Goal counts towards the time (6,7, or 8 hours for bronze, silver and gold respectively) you need to spend out each day on your expedition. If you need time to research something then add the time needed to your route card.

As with anything you **HAVE** to do, the best thing to choose is something you are genuinely interested in. If you are stuck for ideas then talk to your supervisor for more ideas specific to the landscape you will be passing through or read on for some generic Team Goals.

### Some ideas for Team Goals

**Geography:** Learn about the geography / geology of an area before your expedition and then take photos / notes / sketches to give the practical element to your study.



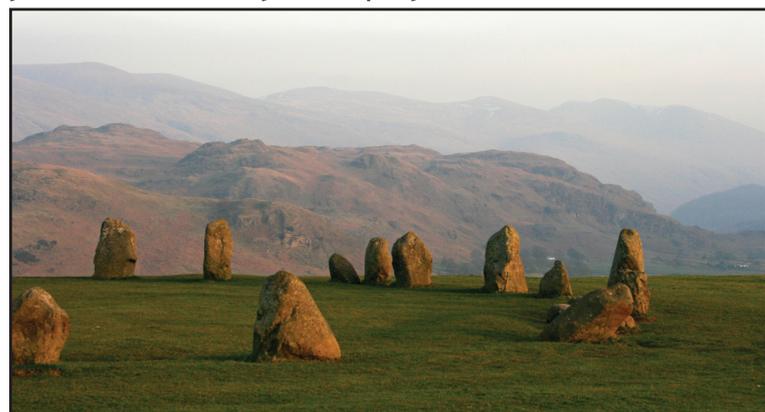
**Use of land:** Old mine workings can be visually striking. Before you go out find out what was mined in the area and why then visit the sites of the mine workings. Other land use studies could focus on farms, field systems, tourism etc.

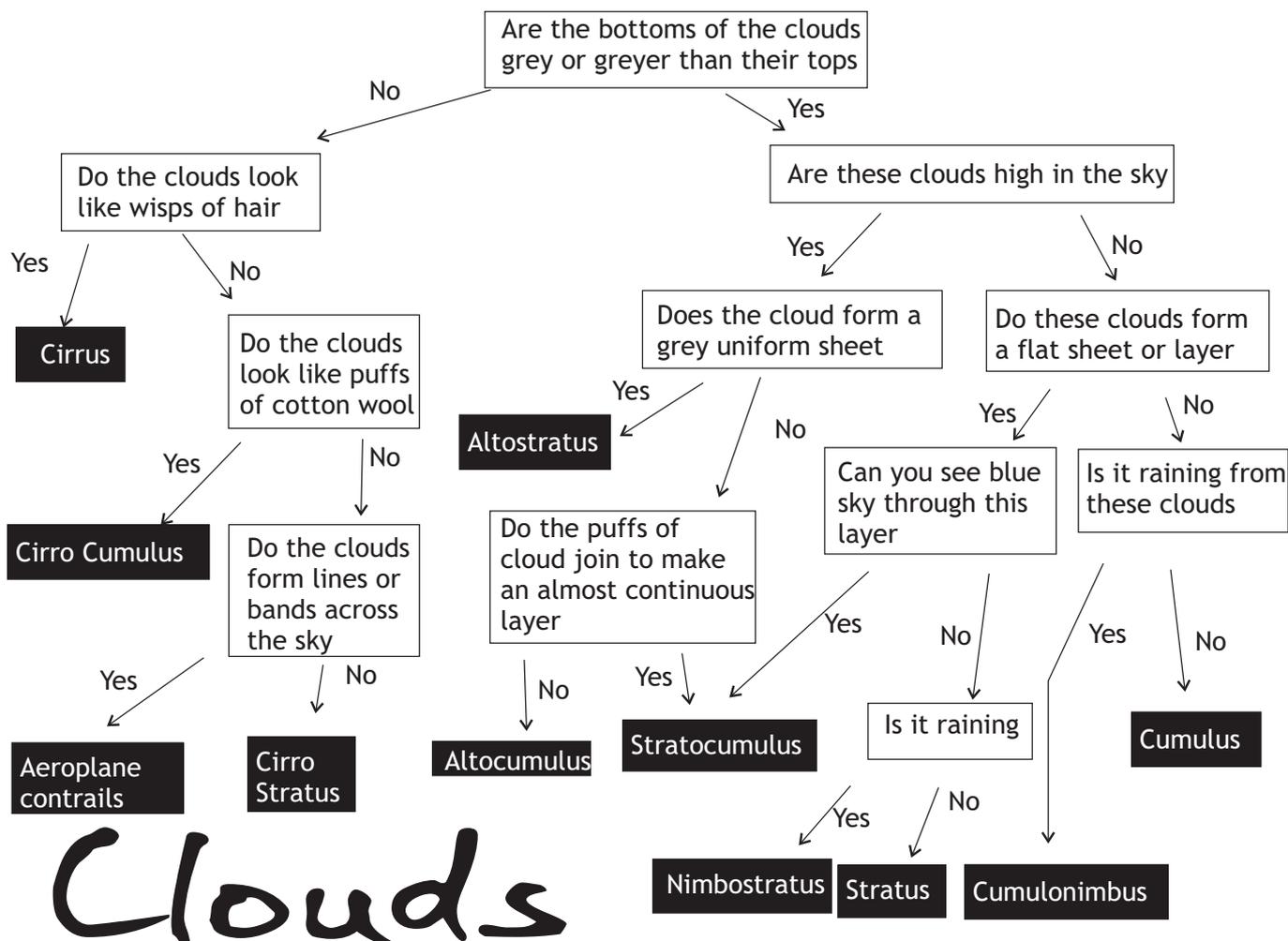
**Transport:** Many railway lines and canals have a long (and thanks to enthusiasts) well documented history that can be researched both at home and en-route.

**Leadership styles:** Take it in turn to lead the rest of the group (half a day or a day each). Discuss different leadership styles that each of you employed.

**Morale:** What affects morale? How can you anticipate a dip? What can you do to prevent your morale dropping?

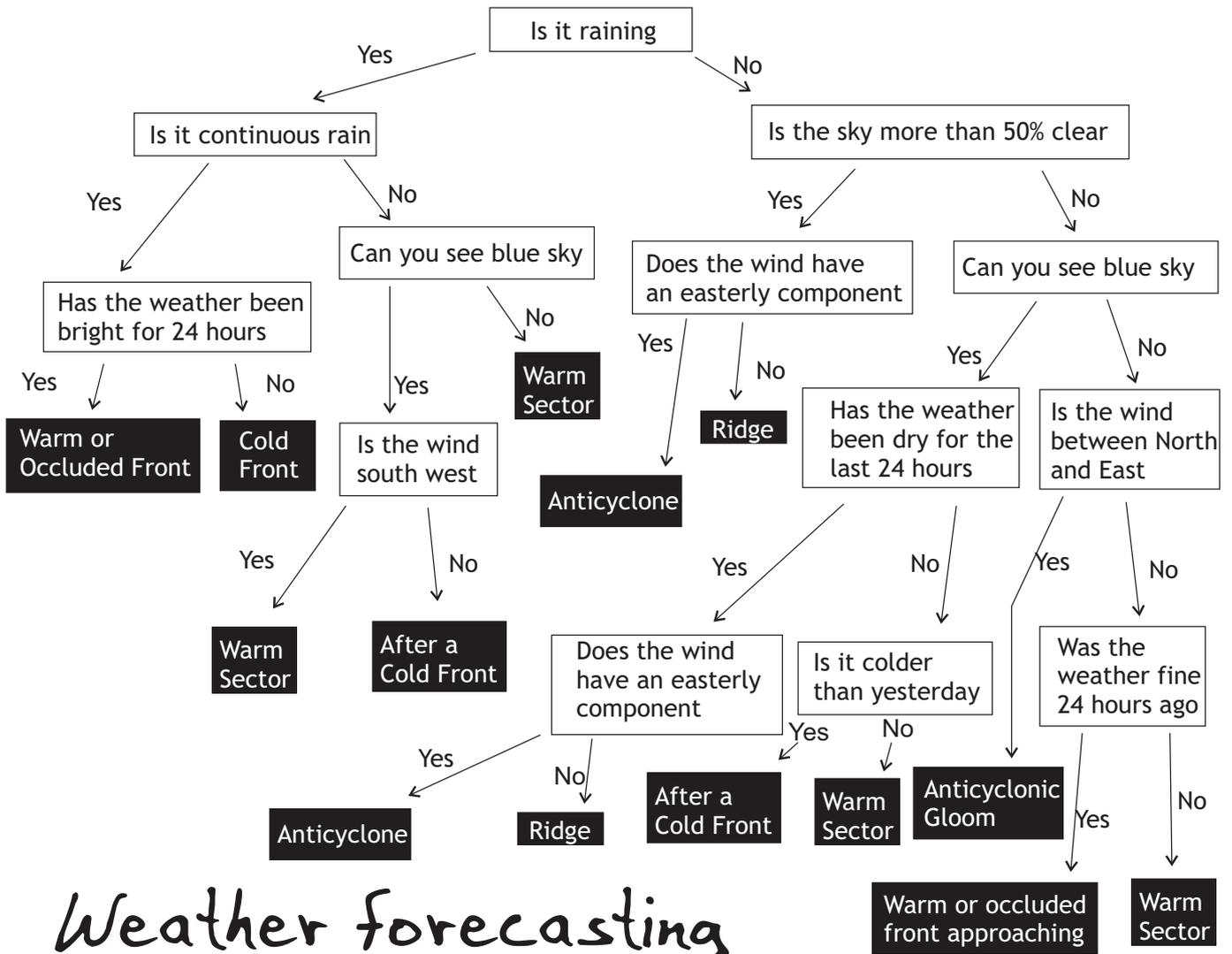
**Historical:** Stone circles and standing stones, Old or derelict structures, churches and abbeys, roman roads.





# Clouds

|                            |   |
|----------------------------|---|
| <b>Cirrus</b>              | Cirrus show that there is a lot of wind high in the atmosphere which means that the weather is probably about to change. Often seen before a warm or occluded front.    |
| <b>Cirro Cumulus</b>       | Often called mackerel sky. Formed when the top of the troposphere is colder than what is underneath. Often found in the warm sector before a cold front arrives.        |
| <b>Aeroplane contrails</b> | Aeroplane trails form when the upper air is very cold which makes the water in the gas coming from the engines condense and form cloud. Often seen in an anticyclone    |
| <b>Cirro Stratus</b>       | Cirrostratus is like cirrus but thicker and it tells us that the weather is about to change. Often seen towards the end of a ridge and before a warm or occluded front. |
| <b>Altostratus</b>         | Forms when large areas of air are moving slowly upwards. Can be seen before a warm or occluded front.   |
| <b>Stratocumulus</b>       | Forms when the air high up is warmer than it might normally be. This happens during anticyclones. These clouds are responsible for anticyclonic gloom.                  |
| <b>Altostratus</b>         | Forms when the air in the middle of the troposphere is much colder than the air below. Often seen in the warm sector before a cold front.                               |
| <b>Nimbostratus</b>        | Formed when large areas of the troposphere are moving gradually upwards. This is the cloud which makes the rain in warm, occluded and cold fronts.                      |
| <b>Stratus</b>             | Formed when the air is very humid and often produces drizzle. Usually found in the warm sector.   |
| <b>Cumulonimbus</b>        | Formed when the surface of the Earth is much warmer than the air above it. Often found after a cold front, but also at the end of an anticyclone or ridge in the summer |
| <b>Cumulus</b>             | Fair weather cloud. Found when there is a ridge of high pressure in the warm sector or near the coast during an anticyclone where they show that there is a sea breeze  |



# Weather forecasting

|   |  |
|---|--|
| <b>Warm or Occluded Front</b>             | The rain will continue for a few hours before being replaced by a period of bright and breezy weather with the possibility of showers. The weather will continue to be unsettled for the next day or so                      |
| <b>Cold Front</b>                         | The rain should soon clear. To be replaced by sunny, blustery colder conditions with fairly frequent and heavy rain showers. The outlook is for a spell of cold bright weather before rain comes in once again from the west |
| <b>After a Cold Front</b>                 | The theme of occasional heavy showers will continue until the showers die away and the wind eases to make way for a spell of fine weather  |
| <b>Warm Sector</b>                        | Present weather will continue for a while until heavy rain and strong winds come in from the west this will clear after about six hours to be replaced by a spell of bright blustery and showery weather                     |
| <b>Anticyclone</b>                        | The fine weather is set to continue for the foreseeable future bringing warm days and cool nights.   |
| <b>Ridge</b>                              | The fine weather is set to continue for the next day or so before the sky fills with high cloud which will thicken to give a prolonged period of heavy rain  |
| <b>Warm or occluded front approaching</b> | The layers of high cloud will thicken and it will begin to rain within the next few hours. The rain will last approximately eight hours before clearing to give a spell of brighter dryer weather                            |
| <b>Anticyclonic Gloom</b>                 | The gloomy weather is likely to persist for the next few days. However some lucky areas may occasionally see the sun   |



# Lupine Adventure Co-operative - Duke of Edinburgh's Award Kit List

## Personal kit

| Req | Pkd |   |
|-----|-----|---|
|     |     | Walking socks   |
|     |     | T-Shirts (synthetic, technical T-shirts are best)           |
|     |     | Walking trousers (synthetic tracksuit trousers or leggings) |
|     |     | Warm layer (jumper, fleece pullover or jacket)              |
|     |     | Underwear   |
|     |     | Pair of gloves  |
|     |     | Warm hat  |
|     |     | Sun hat   |
|     |     | Sun cream   |
|     |     | Personal medication & small first aid kit                   |
|     |     | Watch   |
|     |     | Whistle   |
|     |     | Torch   |
|     |     | Spare batteries / or spare torch                            |
|     |     | Notebook and pen / pencil                                   |
|     |     | Mobile phone (Check with your supervisor)                   |
|     |     | Water bottle  |
|     |     | Food  |
|     |     | Emergency food rations                                      |
|     |     | Cutlery, bowl and mug                                       |
|     |     | Lighter / matches   |
|     |     | Small wash kit  |
|     |     | Towel   |
|     |     | Small amount of money for emergencies                       |
|     |     | Toilet paper, dog poo bags & period products                |

## Personal kit, continued ...

| Req | Pkd |   |
|-----|-----|---|
|     |     | Rucksack (65 litre capacity as a maximum)           |
|     |     | Sleeping mat  |
|     |     | Sleeping bag  |
|     |     | Sleeping bag liner (optional)                       |
|     |     | Waterproof jacket                                   |
|     |     | Waterproof over trousers                            |
|     |     | Pair of walking boots                               |
|     |     | Trainers/flip-flops (optional)                      |
|     |     | Small repair kit (gaffer tape, cable ties)          |
|     |     | Strong plastic bags / Bin liners (to line rucksack) |

## Group kit

| Req | Pkd |                            |
|-----|-----|----------------------------|
|     |     | Tents                      |
|     |     | Cooking stove              |
|     |     | Fuel for stove             |
|     |     | Group first aid kit        |
|     |     | Maps                       |
|     |     | Compasses                  |
|     |     | Survival bag               |
|     |     | Tea towel                  |
|     |     | Washing-up liquid          |
|     |     | Pan scourer / J-cloths     |
|     |     | Plastic bags (for rubbish) |
|     |     | Small trowel               |





## Full expedition training programmes

### Training

At your premises or on residential

Practice expedition

Qualifying expedition



## 3 things to know about DofE Expeditions with Lupine Adventure Co-op

1

Lupine Adventure Co-op is a not-for-profit company, all proceeds go on running the co-op. There are no owners or shareholders to pay profits to.

2

Our goal is to enable you to offer high quality expeditions to all who want them. We are able to work creatively to make that happen.

3

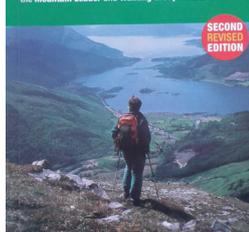
All practices and work in remote terrain is staffed with one instructor per group. Groups therefore get the attention they need to succeed in safety.



## GCSE & A<sup>2</sup> Level PE Rock Climbing Courses

### hillwalking

The official handbook of the Mountain Leader and Walking Group Leader schemes



Written by Steve Long with contributions from MTT staff

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Hire one, or a team of supervisors and assessors to either assist you in delivering your expedition or to run the whole operation.

