



DE *of* E

Expedition e-Learning



What Will Be Covered

Navigation

Campcraft

Equipment

If Things Go Wrong



This e-Learning comprises of a number of instructional videos, articles from external sources, info sheets and recap quizzes.

Before you start:

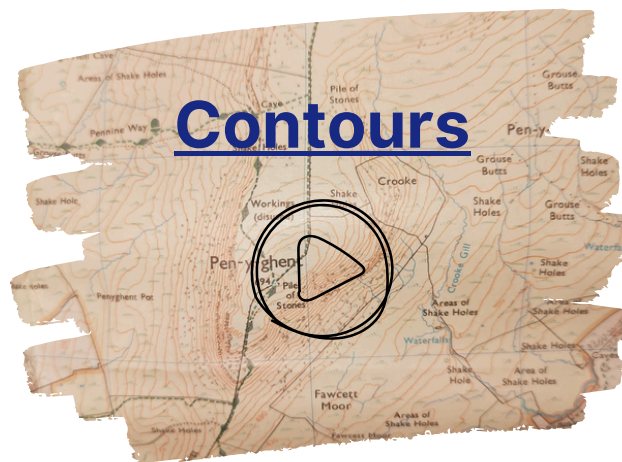
Make sure you're somewhere free from distraction where you can listen to the videos. You should also have some spare paper and a pen/pencil to jot down answers to the quizzes and any notes you want to take.

At the end of this e-Learning you'll find a link to the Knowledge Check, please make sure this has been completed to the best of your ability before your scheduled training/practice weekend.

Navigation













Understanding your map

A map is a visual representation of an area, illustrating the relationships between different elements such as landforms, roads, cities, and natural features. Your map will be your primary tool for navigating on your expedition.



Explore the above links to learn about various map features.

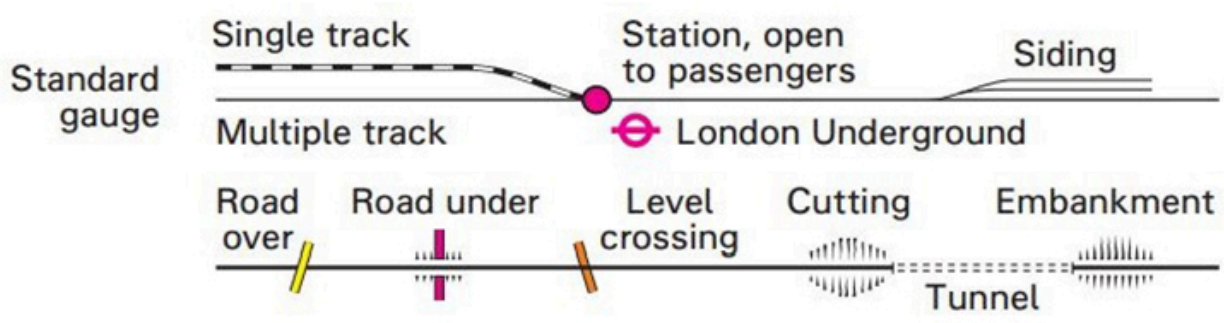
Common Symbols

	Triangulation pillar		Phone; public, emergency
	Camp site		Picnic site
	Camping and caravan site		Public toilets
	Nature reserve		Viewpoint
	Other tourist feature		Visitor centre
	Parking		Information centre

PO	Post office
Pol Sta	Police station
Resr	Reservoir
Sch	School
F Sta	Fire Station
FB	Footbridge
Ind Est	Industrial Estate
Liby	Library

	Coniferous trees
	Non-coniferous trees
	Coppice

	Footpath
	Bridleway

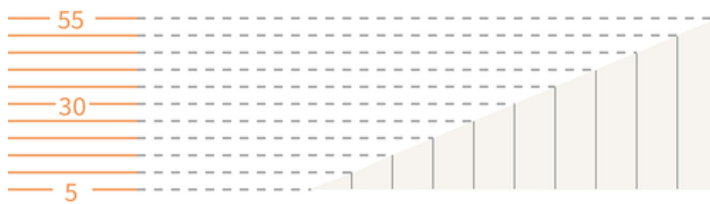


REMEMBER: You don't need to memorise every single map symbol, the above symbols are some of the most relevant to you and if you ever see a symbol you're unsure of you can look it up in the 'Map Key'.

Note on Contour Lines



A shallow slope

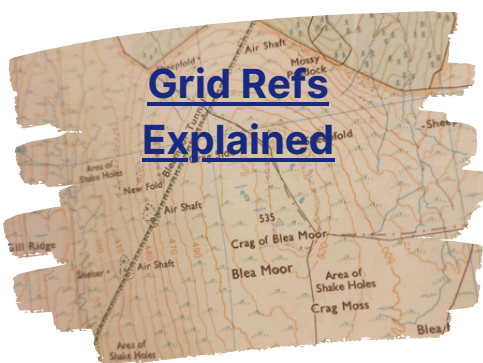


A steep slope

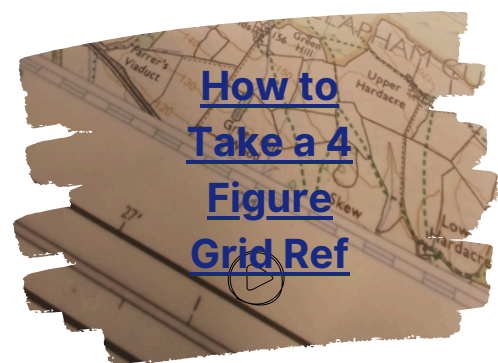
The **steeper** the slope, the **closer** the contour lines.

Taking a 4 figure grid reference

OS maps feature a network of blue grid lines that assist in identifying precise locations throughout the map. The vertical lines are referred to as 'eastings' since their values rise as you move eastward, the horizontal lines are known as 'northings' since their values increase as you head north.



Click the images to learn more



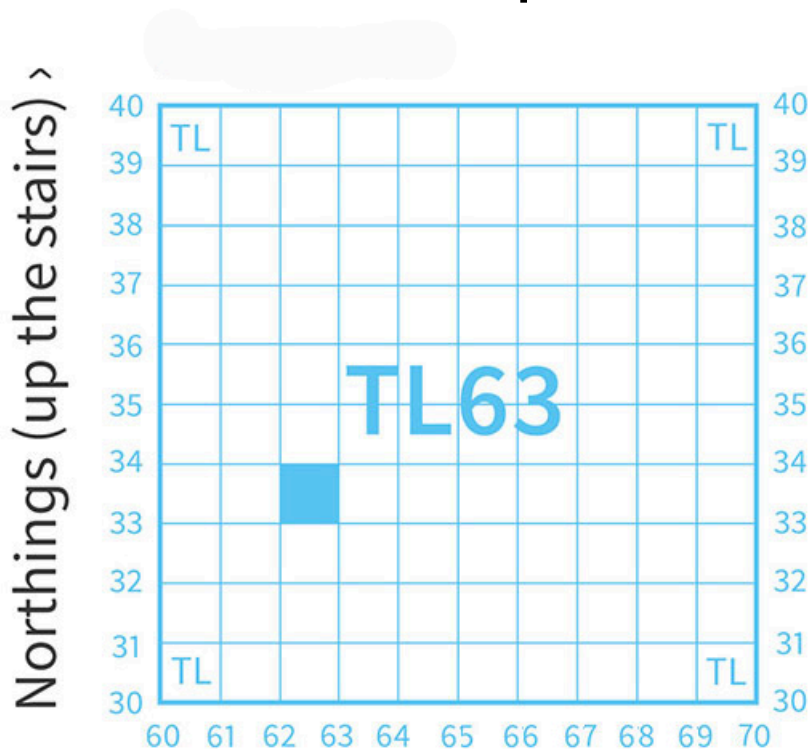
Taking a 4 figure grid reference (cont.)

On your 1:25 OS map, each blue grid represents an area of 1 square kilometer. Therefore, if you walk in a straight line from one grid line to the next, you will have covered exactly 1 kilometer.

When taking a grid reference remember:

Along the corridor & **Up** the stairs.

Example



Eastings (along the corridor) ›

To find the blue square, you go

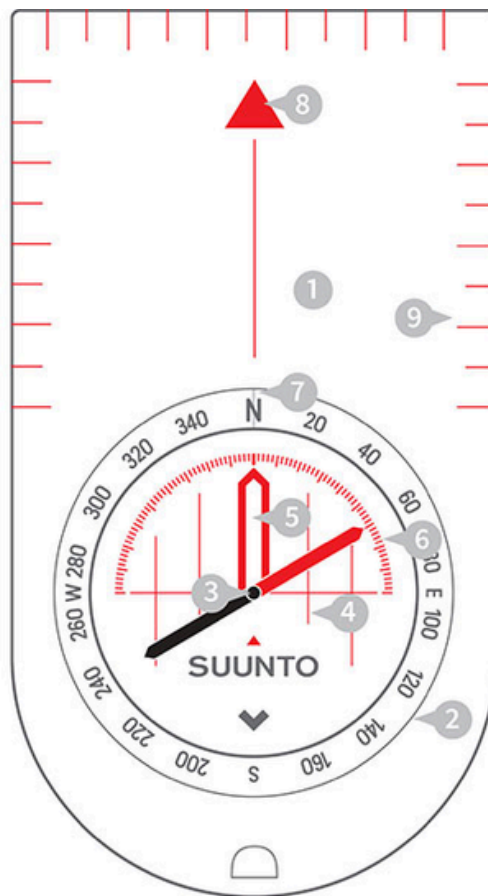
along the corridor to 62

up the stairs to 33

The 4 figure grid reference of the blue square in Diagram D = 62 33

Intro to compasses

Features of your compass



1. **Baseplate** – Clear mounting for visibility of map features.
2. **Compass housing** – Contains the magnetic needle and compass points on a rotating bezel.
3. **Compass needle** – Floats in liquid, with the red end pointing to magnetic north.
4. **Orienting lines** – Align with eastings on a map.
5. **Orienting arrow** – Aligns to north, aiding in grid and magnetic north conversion.
6. **Magnetic Variation** – Adjusts for magnetic declination
7. **Index Line** – Marks the desired bearing beneath the rotating bezel.
8. **Direction of Travel Arrow** – Indicates the intended travel direction, extending from the index line.
9. **Compass Scale** – Measures distances on maps along the base plate.

Useful Links

Beginners Guide



to Using a Compass

How to Take a



Bearing



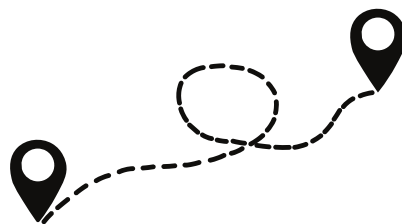
Key points

Top Tip

In the UK, the magnetic variation is minimal and can usually be overlooked. During the Bronze Expedition, it is unlikely that this variation will impact your navigation. However, as you progress to Silver and then Gold levels, it may become significant, so it's important to keep it in mind!

Remember

Easting lines are the grid lines that run vertically up the map.



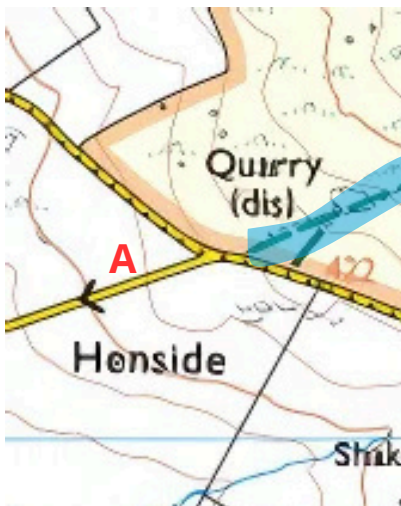
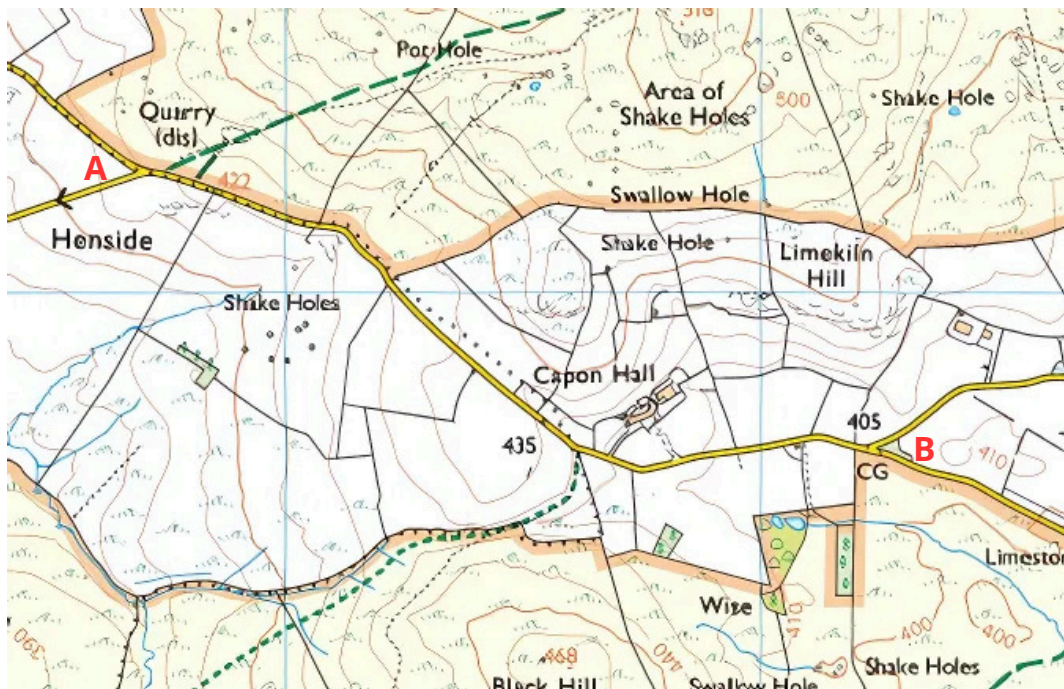
Re-locating your position when lost

Getting lost is common during expeditions, regardless of how good you get at map reading! It's important to stay calm and follow these steps if you find yourself unsure of your location.

<p>1 - STOP</p>	<p>As soon as you are unsure of your location, stop walking and as a team try to find where you are on the map.</p>
<p>2 - LOOK AROUND</p>	<p>Are there any distinctive features that you can see that will help to pinpoint your location on the map? E.G Lakes, ruins, etc.</p>
<p>3 - LOOK CLOSER</p>	<p>Still nothing? Look for less significant but identifiable features such as walls, the shape of the landscape (remember the contour lines), You'll want 2/3 of these to be certain.</p>
<p>4 - THINK BACK</p>	<p>At this point, you may have a few possible locations. To narrow it down, think back—did you pass any distinctive features like a bridge or a fork in the path? Trace your route on the map, using these past landmarks to confirm your position.</p>
<p>5 - GO BACK</p>	<p>Still not sure? Time to start retracing your steps until you're at the last point you felt confident you knew where you were.</p>

You will need to call your supervisor if you find you have gone a long way off route or you've got to Step 5 and have to retrace a lot of your route.

Example



The A Team have been walking along a road for a little while and got distracted chatting. Now they're not sure where they are. They stopped when they got to a junction but when looking at the map they realised they weren't sure if they were at point A or point B.

Instead of panicking and arguing about it, they took a closer look at each potential location on the map and realised they're actually quite different.

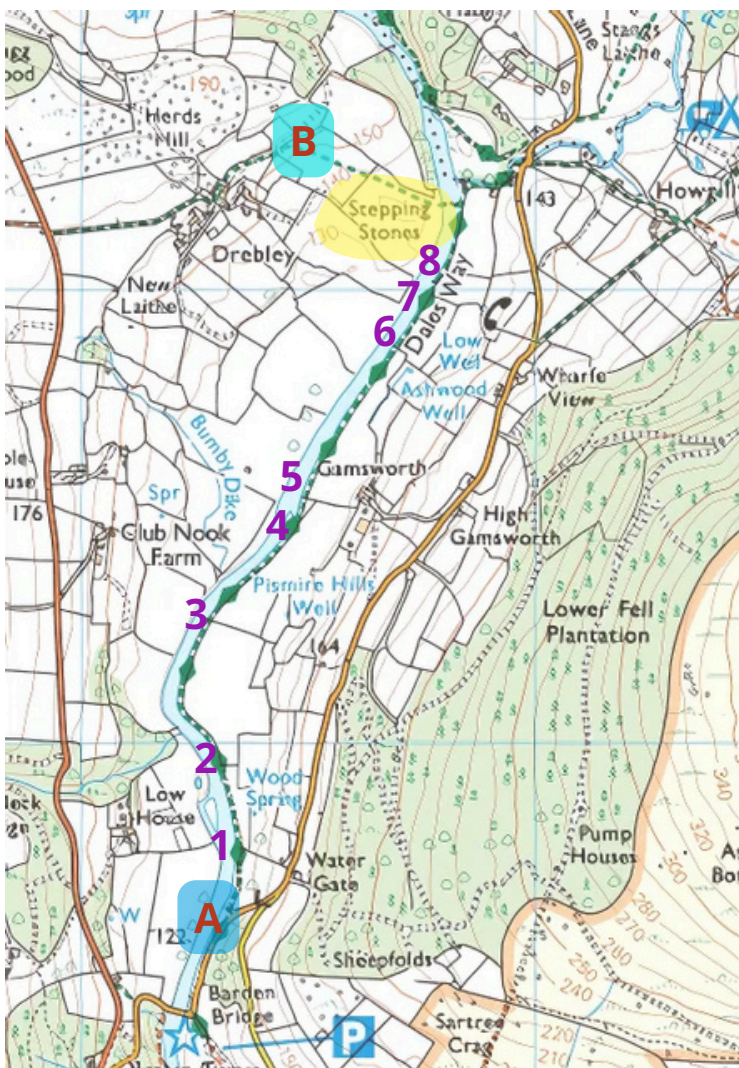
One team member realises that there is a distinctive wall layout by point B (highlighted in purple) but she can't see any walls in a similar formation when she looks around. Another team member notices there is a signpost for a bridleway right next to where the team are stood deliberating and points out the bridleway next to point A on the map (highlighted in blue). The whole team is now in agreement they are at point A and continue on their way.

Be like the A team.

Terminology & Techniques

<p>Handrailing</p>	<p>Following a linear feature identified on the map. (Eg, A wall, a ridgeline, a river)</p>
<p>Decision Point</p>	<p>A predetermined point where you will have to make a decision. (Eg, a crossroad in a path, the point you leave a path and join a new one)</p>
<p>Catching Feature</p>	<p>A very obvious feature determined on the map just past your decision point.</p>

Example



You are travelling from **point A** to **point B**,

Looking at the map you can see that once you join the path beside the river (making sure the river is on your left) you will **'handrail'** the river until you get to your **decision point** which is the stepping stones (**highlighted in yellow**). As long as you keep an eye out for the stepping stones with the river on your left, you won't need to check the map again until you reach them.

The map shows that shortly after the stepping stones, the path curves away from the river before meeting a road. In this example the road is your **'catching feature'** (if you reach the road, you know you've missed your turning!)

Pro tip - You can keep track of where you are without looking at your map by 'collecting features' (also known as ticking points in this example that could be counting the walls, you will pass over/beside 8 wall ends before the stepping stones. (See the purple numbers)

NAVIGATION

Setting/Orientating the Map	Positioning the map so the features on it are aligned with the features on the ground.
Thumbing the Map	Simply holding a map so that your thumb is on the last point you stopped to navigate. This means that the next time you stop to check the map, you don't have to waste time re-locating yourself!

Example

Your POV



Map 1 is orientated North, meaning the top of the map is north.

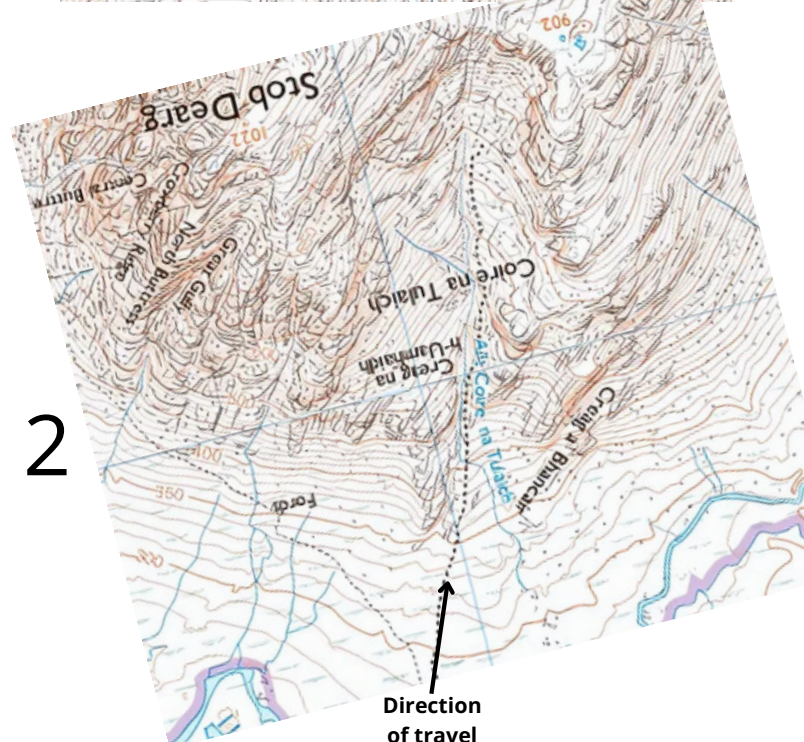
Map 2 is orientated to the direction of travel as shown in the above image.

It is best practice to orientate your map like **Map 2** so you can easily follow your route.

1



2



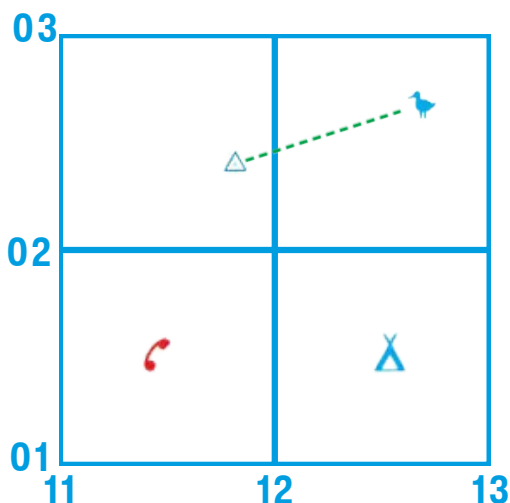
Navigation Recap Quick Quiz

Jot down your answers on a piece of paper and check them on the next page.
Not sure about the answer? Go back in the book and have a read!

*Part 1: Look at the below statements and answer **TRUE** or **FALSE***

1	A footpath is marked by longer green lines, a bridleway is marked by shorter green lines.
2	A trig point is depicted as a pink triangle.
3	The abbreviation 'FB' stands for Fire Brigade.
4	The steeper the slope, the closer together the contour lines are.
5	Campsites are marked with a blue symbol of a tent.
6	Car parks are shown as a solid blue square with a white 'P' inside.

*Part 2: Look at **the grid on the left** and answer the questions*



7	What is the four figure grid reference of the campsite?
8	What is the four figure grid reference of the nature reserve?
9	Is the nature reserve connected to the triangulation (trig) point by a footpath, bridleway or a track?
10	What will you find at the grid reference 1101?

Now check the next page for the answers!

Navigation Recap Quick Quiz: The Answers

1	False
2	False
3	False
4	True
5	True
6	True
7	1201
8	1202
9	Footpath
10	An Emergency Telephone

Equipment

Personal Clothing

What you wear for your expedition is very important and can make the difference between an enjoyable experience and a miserable one!



Please read through the DofE Expedition Kit Guide (click on image for link) carefully, paying close attention to the personal kit sections. Don't worry about the group kit section we will cover this later.

Key points

Walking Boots



Make sure they have good ankle support and are waterproof!

If you're buying boots for the expedition, try them on **with socks on** to see if they're a good fit.

It's a good idea to wear new boots in before you go on your expedition - try wearing them around the house!

Rucksack



Your rucksack needs to have a **minimum 60 litre capacity**, and have a sturdy waist and chest strap.

When carrying your rucksack, it shouldn't be more than 25% of your body weight. Any more and you could hurt yourself!

Make sure it has a **rain cover!** There are also rucksack liners - see next section for more info!

Packing Your Rucksack



The main thing to consider when packing your rucksack is the order in which you're going to need those items.

For Example

You won't need your tent and sleeping bag until you reach the campsite at the end of the day, so if they're the last thing you pack into the top of your rucksack you'll soon get annoyed having to take them out every time you want a snack!

Your water should be easily accessible. As a general idea you should carry **at least 2 litres of water** (more on a hot day), drinking small amounts at regular intervals.

See the image on the left for an example of a well packed rucksack.

Don't forget - It's not just your own personal kit you have to fit in your rucksack. You will also need to fit in 1-2 tents and a stove between your group.

If your expedition falls on a particularly wet weekend you will find that even with a rain cover, the things inside your rucksack will get wet! That's why we recommend using dry bags inside your rucksack.

There are lots of options from top of the range to budget options, if all else fails sturdy bin liners also do the job as well!



Team Equipment

TENTS	<p>We will provide you with a tent for your expedition that you will share with your team (2/3 people per tent). We have a couple of different styles that you might be given. We will cover how to pitch a tent and the best spot to do so in the Campcraft section.</p>
STOVES & GAS	<p>We will also provide the stoves and gas canisters for your team at Bronze level.</p> <p>At Silver you are expected to provide your own gas.</p>
FIRST AID KITS	<p>A first aid kit is vital when heading out on expedition. Your team will need to carry at least one first aid kit with you. What should be included in it is covered in the next section.</p>



Campcraft

Arriving At Camp

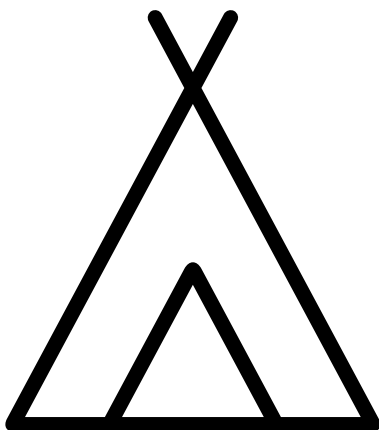
When you first arrive at camp the temptation to sit down, take your rucksack and boots off and chill out will be strong! However, if you can resist the urge the rest of your evening will be much more comfortable.

Your first job when arriving at the camp site is to pick a good spot for your tent. Each campsite has different rules for DofE groups but they generally like us to stay in one area which will limit your choice a bit.

A good spot will:

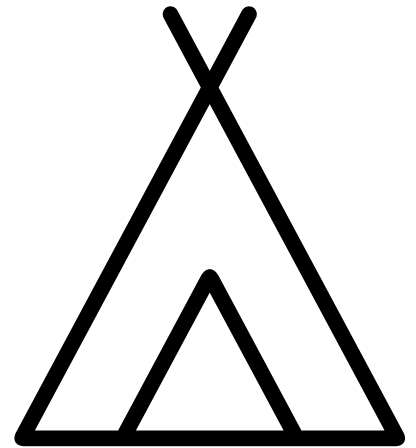
- ✓ Be flat
- ✓ Be free from sticks and stones
- ✓ Be at least 2m away from the next tent
- ✓ Not be at the bottom of a slope (If it rains in the night you may wake up in a swamp)

How to pitch a tent



Click on the tent icon to see how to pitch the Endurance Refuge tents.

Click on the tent icon to see how to pitch the Vango Tempest tents.



Key points

Take time to pick a good spot.

Don't use excessive force putting the poles in.
When 'pegging out' make sure the pegs are inserted at an angle.

When finished your tent shouldn't sag or droop in the middle, the waterproof outer should be taunt but not strained.

You will have the opportunity to pitch both the Endurance and Vango tents that we use during the training weekend.



Camp Cooking

Using a camp stove

As previously mentioned we will be providing a camp stove for you to use during your expedition.

The type stove we use is called a Trangia and is a very well known brand in the outdoors. Trangia's are robust, reliable and sturdy making them perfect for DofE groups.



Step 1

Remove the strap and put it somewhere safe



Step 2

Unpack the stove

A - Frying Pan
B - Cooking Pots
C - Lower Windshield
D - Upper Windshield
E - Gas Burner
F - Pot Handle



Step 3

Place the burner onto the lower windshield.

The best way to do this is to thread the gas pipe through the hole in the top then the hole in the side of the lower windshield. Pinch the catches on either side of the burner and press it firmly into place till it's secure. You should be able to turn it all upside down and the burner won't fall out.



Step 4

Place the upper windshield onto the lower windshield

Make sure to line up the locking mechanism with the notches then twist the top windshield so it all stays together

Step 5

Attach the gas canister to the burner

This is done by simply screwing the canister into place. Be careful not to over tighten.



Planning your meals

As part of your expedition requirements, you are expected to prepare at least one hot meal each day (with the final day being optional) using a camp stove - a Pot Noodle won't suffice!

Here's a brief guide to assist you in crafting an expedition menu.

MEAL	WHAT YOU SHOULD BRING	EXAMPLES
BREAKFAST	Something nutritious and filling with slow release energy that will keep you going until lunch.	Instant Porridge, Cereal Bars, Cereal
LUNCH	Something that will travel well in your rucksack and will still be fine if it gets a bit squashed! We advise something that doesn't need cooking while on your day walk.	Prepackaged sandwiches (on your first day), tortilla wraps, Pepperami, beef jerky/biltong, dried fruit.
DINNER	Advisable as a warm meal - Something hearty, filling and tasty. Pick something that's easy to prepare as you'll most likely be tired by the time you've reached camp.	Pre-cooked rice, pasta in sauce,
SNACKS	Vital to boost your energy when the going gets tough! While you should avoid heavy snacks and overloading on sugar, a mixture of healthy options and fun treats will keep you energised and keep morale high!	Cereal Bars, Dried Fruit, Biscuits, Sweets, Nuts.

Transporting your food

Dry goods (pasta, rice, instant soup etc) should be protected from moisture. Zip-lock sandwich bags work well for this.

Divide food into portions - you won't eat 1kg of pasta by yourself!

Again zip-lock bags are good for this, plastic food storage containers work too but they're heavier and bulkier.



Recommended Foods



Not Recommended Foods

Not enough on it's own but fine as an additional snack



No raw meat or fish, you don't want to end up with food poisoning!

Nothing breakable that will make a mess in your rucksack.

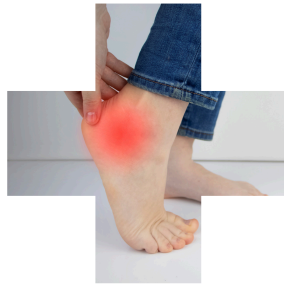
IF THINGS GO WRONG

Basic First Aid

There may be situations during your expedition that require some basic first aid. Click on the crosses below to find out how to handle these situations!



DR ABC



BLISTERS



MINOR BURNS
AND SCALDS



DEHYDRATION



MINOR BURNS AND
SCALDS IN CHILDREN



HEAT
EXHAUSTION



HEAT
STROKE



HYPOTHERMIA



CUTS AND
GRAZES

First Aid Kit



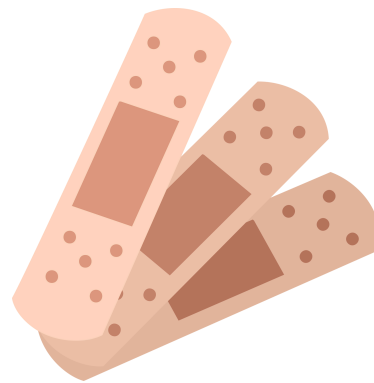
As part of your expedition kit, you should have a basic first aid kit with what you need in case of an emergency.

If you are wanting to bring your own, [here is a guide from DofE regarding what to bring.](#)

Important things to note

Bring extra blister plasters, especially if you have newer walking boots that haven't been broken in properly yet.

It's important to keep a list of team allergies for emergencies. Store this information securely in your rucksack, preferably in a hidden compartment, as it's sensitive data.



BTW...

Learning first aid is not only helpful for your expedition but a great life skill to have in general. You can learn [First Aid as part of your Skills section](#) if you've not chosen your activity yet!

When To Call Your Supervisor

There may be a situation during the expedition where you need to call your Supervisor. Your Supervisor will be in the area that your team will be travelling.

Things that do require supervisor assistance ✓	Things that don't require supervisor assistance ✗
<p>Someone in your team is injured or unwell If a teammate has a significant injury or illness that affects their ability to continue, you should call for help.</p>	<p>You're tired, uncomfortable, or finding it difficult Feeling tired, having blisters, or struggling with the weight of your rucksack is part of the challenge. Unless it's a serious medical issue, you should manage it within your team.</p>
<p>You are completely lost and cannot relocate your position If your group has tried using the map, compass, and surroundings but still cannot determine where you are, you should contact your Supervisor.</p>	<p>You've taken a wrong turn but know where you are If you have made a minor navigation mistake but can correct it using your map and compass, you should do so without calling for help.</p>
<p>An essential piece of kit is broken or lost (for example: tent, stove, map)</p>	<p>You want to update friends or family Your expedition is about teamwork and independence. Contacting your Supervisor to pass messages to parents or just to chat is not appropriate.</p>

In the event of an emergency, it is VITAL that you:

- ✓ Try and determine your location so that your Supervisor can find you easily
- ✓ Remain calm
- ✓ Stay with your team until someone arrives

Calling Mountain Rescue

In extreme circumstances, you may need to contact Mountain Rescue.

If this is the case, you must also contact your Supervisor to let them know what's going on.

Dial 999 or 112



Ask for Police



Then ask for Mountain Rescue

When you call Mountain Rescue, make sure you have:

- Location (with a grid reference if possible)
 - Name, gender and age of casualty
 - Nature of injuries or emergency
 - Number of people in your team
 - Your mobile phone number

IF THINGS GO WRONG

In a very limited number of scenarios it may be appropriate to call Mountain Rescue at the same time as calling your supervisor. Please see the below examples of when you should call Mountain Rescue straight away

One of your team falls unconscious	Falls from a great height/broken bones	Allergic reaction (severe, not hayfever etc)
Any kind of fit or seizure	Severe burns	Extreme blood loss (open wounds, NOT minor grazes!)

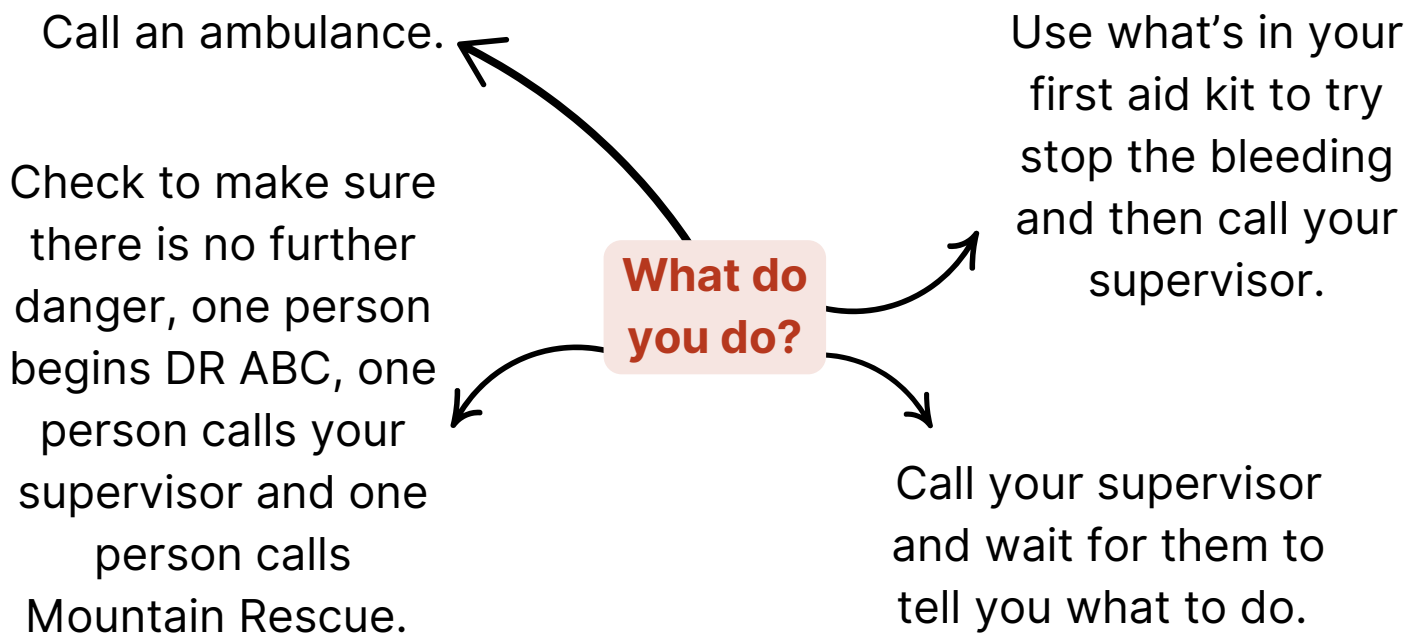
Situations where you should not contact mountain rescue without being advised by your supervisor first

Minor cuts and bumps (from tripping over etc)	Twisted ankle	Dehydration (you should call us well before this becomes an emergency)
Bites and stings (if the participant has a minor reaction eg a rash)	Blisters (where the participant cannot continue)	Hypo/Hyperthermia (you should call us well before this becomes an emergency)

To summarise: If a situation occurs where someone is at risk of death or life changing injury, call the mountain rescue. If there's a situation where your first aid skills won't quite fix it, call your supervisor. If you have a situation where everyone can continue, keep going and update your supervisor at the next checkpoint.

What would you do?

You and your team are walking along a path at the bottom of a craggy outcrop. You hear a shout from above before one of your team gets hit by a falling rock. They immediately fall to the floor unconscious and they are bleeding from a gash in the forehead.



This is an **extreme** scenario in which every second counts so it is not enough to just call your supervisor.

The correct first step in any emergency or first aid scenario is to **make sure you are safe**. You can't help your injured team member if you get injured yourself.

Remain calm. A scenario like this one is going to require Mountain Rescue so you should call them straight away and follow any instructions they give. we'll discuss this in more detail during the training weekend so don't worry if you're still not sure!

NEXT STEPS

Congratulations on reaching the end of the e-learning! All you need to do now is complete the knowledge check. The knowledge check is 'open book' which means you are welcome to refer back to this e-learning as much as you'd like. There is no passing grade either, it is simply there to see which areas need further development.

The knowledge check will be available to complete from the 19th of February and can be found in the Crossley Heath DofE Hub on the C I Adventures website. Click on the below C I Adventures logo to take you to the DofE Hub.

