

Expedition kit guide

- for participants and parents



Expedition kit

a participant's and parent's guide

Contents

Recommended Kit mean and what's in your wardrobe?	3
The ten questions you should ask	4
The DofE Reward Card	5
DofE expeditions, weather and kit, an overv Bronze, Silver and Gold	
The DofE kit list	7
Personal kit Hiking boots Expedition socks Waterproofs Rucksacks Sleeping bags Sleeping mats/air mats Clothes & wash kit	9 10 11 12
Packing/waterproofing	15
Group kit Tents Burners and fuel Campcraft and cooking Safety – navigation Safety – first aid	18 19 20 21
Kit care – making your kit last	22



Download the DofE kit list at www.DofEShopping. org/kit-list



How to use this guide

his guide is aimed at helping participants and parents to choose and then find the right kit for their expeditions and DofE adventures. Each kit item category includes key information,

tips from the experts and some money saving ideas. This guide is aimed at those undertaking UK expeditions on foot.

This guide is just a summary; the best place to get advice is from your DofE Expedition Supervisor, who will check your kit, and staff at your nearest Cotswold Outdoor store.



What does DofE Recommended Kit mean?

The DofE has great relationships with expert expedition kit suppliers and manufacturers. We test and recommend their kit based on their design and suitability for the kinds of expeditions usually undertaken by DofE participants.

We don't look for the most high end or expensive kit, but kit that is fit for purpose and represents good value for money. They are **recommendations** only and not kit that participants must use.

The DofE Charity receives a royalty from all sales of Recommended Kit items, which helps to support our work with young people.

All equipment must be checked by the Expedition Supervisor (who is responsible for the safety and welfare of participants) before being used for any DofE activities.



Ten questions a DofE participant should ask...

nswer these ten questions to help you get the right advice in store and make sure you get the kit you really need for your expedition. Remember to always get your kit checked by your DofE Expedition Supervisor.

- Have I got my DofE kit list? (www.DofEShopping.org/kit-list) For expedition kit, from day one the kit list is the one thing you must not forget. Take it when you go shopping and when packing it's a great checklist.
- **What's already in my wardrobe?** Check what kit you already have that you could use (but avoid denim and cotton items).
- What can I borrow? Ask around and see what people have and would be happy to lend, particularly small items like hats, sun cream, roll mats and water bottles.
- Am I still growing? If you are still growing then you may want to spend less as you will quickly out grow your clothing, boots and some kit.
- What's the climate like? Find out what are the normal temperatures, particularly at night, for time of year.
- What's the weather likely to be? You must have waterproofs, but check the forecast. Do you need dry-bags and extra waterproofing? What about sun cream/sun hat/sunglasses?
- **7** How long am I going for? Making do with basic/alternative kit for two days is very different to three or four days. Really think about what compromises are safe and comfortable.
- What else would I use the kit for? Would you use the boots every day walking the dog or take the rucksack on your gap year? It might be worth spending more if you'll get that value back over time.
- What's my budget? Think about what you can afford, what kit you have to get and remember your 15% Cotswold Outdoor discount.
- Where can I get a professional boot fitting? The range of expedition boots is vast because people's feet are so different. If you want a boot to last, make sure you get a professional fitting to buy a pair that really fits you. The DofE Recommended retailer is Cotswold Outdoor who provide a great free fitting service.

Remember your DofE Reward Card! 15% off at Cotswold Outdoor

very young person receives a DofE Reward Card in their Welcome Pack when they start their DofE.

The card gives **15% off** full price clothing and equipment at Cotswold Outdoor all year round both in store and online!



The participant's parents and immediate family can also use the card.

Ordering online

Use the '**AF code**' on the back of the card when buying online or bring your card into store.\



For more information, plus terms & conditions, and for news of any additional discounts available with this card, go to www.DofEShopping.org/rewardcard.

DofE expeditions, weather and kit an overview: Bronze, Silver and Gold

ronze, Silver and Gold DofE expeditions are very different undertakings. Bronze expeditions are all about young people enjoying the outdoors and wanting to go onto Silver. Many Bronze expeditions are undertaken with kit which is older, borrowed and lower cost than for Silver or Gold expeditions.

Gold expeditions however are a comprehensive challenge of team work, self-reliance, isolation and risk management. Lightweight, modern and durable kit will have much more value on these four day adventures. At Gold, always think lightweight and waterproof.

Get the full value

Remember to shop wisely and buy items you'll use again for other



- Walk the dog every day? Then get some good boots!
- If going travelling, get a good rucksack.
- Buy a waterproof jacket which can also be used as a school coat too.



The DofE kit list

www.DofEShopping.org/kit-list

This is a participant's most important expedition document.

The DofE kit list sets out everything a participant needs for their expedition in a helpful 'got it/packed it' checklist.

They should use it to be sure they haven't forgotten anything. It also tells you what

kit the DofE recommends to help you when shopping for items.



Hand it down...

If you have a large family buy kit in neutral colours so that younger siblings can use it too when they are old enough. A rucksack with an adjustable back system will also help with this.



Saving money: What's in your wardrobe?

The best way to save money on expedition kit is to use what you already have or borrow kit from other people.



Most people will have some of the clothes they need, a torch, plastic plate and so on and it's amazing what kit people have if you ask around. Some kit, like boots and socks, you can't borrow and there can be disadvantages to borrowing other items like rucksacks too. Always check the kit's suitability (especially if borrowed) with your Expedition Supervisor.

Hiking boots

Your most important item of kit and one you will almost certainly need to buy.



It's a personal thing Feet come in all shapes and sizes and different boots may suit different kinds of feet.



It is essential that you try on boots and walk around in them before committing to buying them.



More expensive boots use Gore-Tex (breathable and waterproof) and leather (soft, durable and waterproof) combined with shock absorbing, high grip soles.



Wear your boots regularly to break them in to your feet.

Don't buy expensive boots if you are still growing or if you'll not use them much.



Often you can get last season's boots in the sales and you can still get a professional fitting. If you decide the boots don't fit, some retailers will allow you to return boots if you have only worn them indoors.

- It is common to use additional padding like a foot bed to help get the best possible fit.
- There are several ways to lace boots, each giving a slightly different fit so get hiking boots professionally fitted.
- Take lightweight trainers or flip flops to wear at the camp site to rest your feet.



- Try on boots while wearing expedition socks and walk around in them. A boot rating of B0 or B1 tends to suit DofE expeditions.
- The boots must have ankle support to protect you while walking with a heavy rucksack (essential in wild country), and check there is a good deep tread for grip.
- Think about how often you'll use your boot and spend money appropriate to that use.

Expedition socks

Modern expedition socks are a mix of wool to give warmth and cushioning, and technical fibres for strength and absorbing moisture. They are specially designed to protect your feet during expeditions.



Types of socks

Midweight: designed for all year round expedition use with leg and underfoot cushioning.



Lightweight: designed for expeditions during the spring and summer with underfoot cushioning.



Liner sock: ultra-thin, worn under an expedition sock to aid dryness and hygiene. Liner socks also help to prevent rubbing. It's a personal choice to use liners or not, talk to your DofE Expedition Supervisor.

If you need to, buy one outer sock pair and two liners. Liners can be easily washed and dried overnight keeping fresh socks next to your skin.

At Bronze level, if you can't buy expedition socks, try wearing a thin and thick pair of sports socks and take plenty of spares, make sure you test this first! There are two easy ways to make your expedition



socks last much longer:

- First, always wash your socks inside out as the water reinvigorates the underfoot cushioning.
- Second, avoid wearing your socks on carpet; it acts like velcro and creates a bobbling effect.



- An investment in good expedition socks can be the key to an enjoyable expedition and help avoid nightmares with blisters.
- 2 It's best to take as many pairs as expedition days so you have a clean, dry pair every day, (always take at least two pairs).
- Choose your socks and then wear them when trying on boots.

Waterproofs

All DofE participants need a waterproof jacket and trousers. This outer (shell) clothing layer protects against rain, wind and cold.



Expedition jackets are very lightweight and designed to be both waterproof and breathable to ensure your inner layers stay dry.



Waterproof trousers work in the same way. These are usually worn over the top of outdoor trousers.



Gaiters are a personal choice. They cover the tops of boots and lower legs and are very good for moorland, boggy or grass areas to protect against dew.

For best value, choose a jacket that you'd wear for other outdoor activity or everyday use.



You can make your jacket last much longer by using a waterproofing cleaning product (see page 15).

- Check that your jacket is waterproof, not just waterresistant.
- Put your waterproofs on at the first sight of rain.

Experi tips

- Try to get trousers with leg zips so they can be put on quickly and easily over boots.
- Avoid '3 in 1' jackets.
 Layer your clothing so you can regulate your body temperature.

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- Talk to store staff about what activity you are doing and get a jacket designed for expeditions.
- 2 Use a jacket with a front zip rather than a pullover. It goes on faster and can be worn open. Check that it comes with a hood, ideally one which does not flop over your face.
- Check that waterproof trousers are wide at the bottom or have a zip/poppers to the knee to let them go over expedition boots.

Rucksacks

Although expedition rucksacks are often easy to borrow, try to use the most modern bag you can. New technologies have made modern ones much lighter, comfortable and flexible.

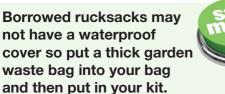


What to look for:

Get a bag with a strong waist strap and wide well-padded shoulder straps. It should also have an attached high visibility waterproof cover and an adjustable back system.

A rucksack can be a good investment. It may last for all three levels of the DofE and be also used for school trips, other journeys and travelling.





You'll need a waterproof bag inside your rucksack to put all you kit in. You can use a dry bag or just use a garden waste/rubble bag. You can also get waterproofing spray/wash (p.15). If you borrow a rucksack and it has an adjustable back system, make sure you get the bag fitted for you.

- Look out for a load transferring, adjustable back system on your rucksack and ensure you are fitted for your rucksack, these will make a big difference to comfort while out on expedition.
- Make sure your pack transfers the weight of your kit to your hips and not on your shoulders.



- Rucksacks are measured by their litre capacity (internally and expansion). E.g. 60+10 means a total bag capacity of 70 litres.
- 2 Get the right size bag for your expedition.
 60L should be fine for Bronze, but Gold will often need 70L. Get it fitted in-store to get the best comfort and fit.
- Some rucksacks are designed for women and smaller men with narrow shoulder straps and back.

Sleeping bags

Most sleeping bags come in 'seasons' 1 or 2 = summer, 3 = spring/autumn and 4 = winter. Use a bag designed for comfort at the lowest likely night time temperature.



What are your choices?

Synthetic: lower cost but bulkier and heavier than down, but retains better heat insulation if wet.

Down: the best insulation, light weight, easily compressed, very warm and long lasting but more expensive and must be kept dry.



A two or three season synthetic bag should be sufficient for most DofE expeditions, but consider where you are going and the likely temperatures. Use a bag designed to be used in the outdoors. Quality (down or synthetic) is dependent on the price.



Using a silk or cotton liner is a cheap way of adding an extra season, making your bag last longer.



It also means you can borrow someone else's bag (always use a liner if borrowing a sleeping bag).

- Invest in an outdoor designed bag with a compression stuffsack to reduce the size.
- Always pack your sleeping bag in your rucksack and waterproof it to keep it dry.
- It is often worthwhile investing in a three season bag to see you through your Bronze Silver & Gold Awards and beyond.



Before you buy: three

- y things to know...
 Be sure what season bag you need. Having
 - bag you need. Having a four season for the summer is extra weight and uncomfortable, but a two season in March or October may be dangerous. Find temperature and season ratings on the inside of the zip on most sleeping bags.
- 2 Check it is a 'mummy' sleeping bag thin at the legs with a hood.
- Check it has a compression sack which will make it much smaller.

Sleeping mats

Sleeping mats are a DofE essential to provide insulation from ground and comfort for a good night's sleep.



What are your choices?

Traditional closedcell **foam mats** are low cost, lightweight, durable, give enough insulation and are easy to borrow.

However, they often tend to be bulky and not very comfortable.

Self-inflating air mats cost a little more but insulate better and are much more comfortable. They usually roll down into their stuffsack to fit into your rucksack.

Foam roll mats last very well so it is usually easy to find one to borrow.



Get a strong garden rubble sack to put it in to keep it dry.

- Store selfinflating mats rolled out with the valve open.
- Keep the elastic straps that came with the mat, or other elastic, don't use string to tie it up.

Exper tips

 If your mat is outside your bag, don't risk keeping tent poles in the roll's middle. If you choose to store spare clothes in it, ensure they cannot fall out or get wet.



- Think about how tall you are. A ¾ length mat might be all you need and allows you to save weight/bulk.
- 2 Use a sleeping mat designed for outdoor use, yoga/roll mats do not have the same durability or insulation.
- Thick air mats may be a luxury for DofE but, if you know you need a good night's sleep to be motivated the next day, a good quality self-inflating mat is a wise investment.

Clothes & wash kit

Under your shell waterproof layer you'll need lightweight, fast drying inner and middle layer clothing.



Expedition clothes are specially designed to be close fitting and will be breathable. This keeps you dry and be more comfortable with the rucksack. They are often also water resistant.



You'll need a long sleeved top and it is usually better to wear lightweight trousers than shorts to protect your skin.



Don't use jeans.
Avoid tracksuit bottoms and hoodies as they are heavy when wet.
Avoid cotton clothing.

Use your normal toiletries, but only take essentials.



If you need luxuries take a very small travel shampoo bottle and lightweight expedition towel. Don't bother with make up/shaving gear. Share items like toothpaste, toilet roll and antiseptic hand wash/gel with your team.

- At Silver and Gold have a separate set of clothing for use at camp. It's comfortable and you can air or dry your day kit.
- Don't use cotton. It's okay when dry, but if it gets wet it holds moisture and takes a long time to dry. If moisture is held next to the skin, it is unpleasant and can contribute to a drop in body temperature and in exposed areas can lead to chills or hypothermia.

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Discover Your World

- Use multiple layers, not one expensive item. Layers allow flexibility to regulate body temperature and stay dry.
- Try to use breathable fabrics that move sweat away from your skin.
- Think about what other clothes you'll need like gloves and sleepware. You'll probably own some clothes for your expedition already.

Packing/waterproofing

Follow some basic tips and you'll find your expedition easier and drier.

- Get your bag properly fitted for you.
- Pack everything the same way each time, then you'll find and pack your kit quickly.
- Group kit together, e.g. each day's food or spare clothes and bag them in different colour/transparent bags.
- If the weather is going to be very wet invest in some dry-bags for spare clothes and sleeping bag to ensure they stay dry.
- Keep heavy items close to your back to help keep your centre of gravity.
- Pack your bag in the order you'll use things. Evening items like your sleeping bag, sleeping mat and clothes go towards the bottom of the bag. Waterproofs at the top and gloves, hat, snacks, water and first aid kit in the outer pockets.
- Dry anything before it goes into the bag if you can to save weight.
- Put a thick garden refuse bag, waterproof liner or dry bag in the rucksack to help waterproofing.
- Try to get everything inside your bag.
 Attach anything on the outside securely.
- Get a waterproof cover for your rucksack.
- Rucksacks must be weighed before departure and should not be more than one quarter of the participant's weight.

Use any method to keep kit dry. Bin bags with elastic bands, carrier bags and freezer bags are all useful. Be thorough and plan ahead for rain. Don't let your maps get wet!

- Practise putting up and taking down your tent at home so you can do it very quickly if it is raining.
- You can improve the water resistance of your rucksack and tent by treating them in Nikwax Tent and Gear SolarProof and letting them dry naturally.







Tents

Most tents for DofE expeditions come in two to four person sizes to allow for two or three tents per expedition team and flexibility for mixed gender teams.



If you are looking to buy your own tent there are now excellent one, two and three person super lightweight tents which won't cost a fortune, but which will still be of expedition standard.



Many DofE centres provide tents so check in advance to see what you can borrow.



- Dry your tent before packing it away. It saves weight and stops it getting mouldy and smelly at home.
- On hot days ventilate your tent by opening the doors and vents to prevent condensation building up. Leave vents open at night.



- Similar tents can have different prices. You pay for double stitching for strength, covered stitching for waterproofing, lighter material, stronger/pre-bent poles and better tensioning.
- 2 Check the tent can be split so several people can carry it.
- If the tent is only for backpacking, focus on it being lightweight. If it might also be used for general camping focus on the size/space. If you're camping in exposed areas go for strength, water resistance and insulation.

Buying tents for DofE expeditions

The golden rule is flexibility.

DofE centres will usually have Bronze, Silver and Gold expeditions all with different destinations and gender splits each year.

It's often a good idea to buy a large two person or large three person tent that can also act as a three or a four person tent for many Bronze groups.

Tents with porches to store rucksacks might allow for an extra participant inside the tent and save weight.



Snapped cords in the tents poles are easily replaced.



Tie a knot in the new cord, thread through all the poles and pull to add tension, but not so it is tight, and tie another knot.

New 'shock cords' are available from **www.campingspares.co.uk**.

Jargon busting



Tunnel tent: three similar height arched poles to create long and spacious tents, great for lots of kit.



Semi-geodesic: a three pole tent where the crossing poles create structure and rigidity. Good for exposed areas.



Geodesic: a four pole interlocked tent. Very strong mountain tent for the most demanding of Gold expeditions. The extra pole and strength does add weight. Fully geodesic tents have five interlocking poles.

Hydrostatic head:

Measured in 1,000mm this is a standard measure of water resistance, i.e. how many mm of water can be applied before it penetrates the material. DofE recommended tents have a 5,000mm HH.

Burners & fuel

Cooking food is a DofE requirement and currently there are two usual choices for DofE groups: gas or methylated spirits.



The Trangia is the classic DofE stove. Safe, compact, lightweight, easy to clean and cheap to run. Most DofE groups use them as they last for many seasons and can be used by a whole team.

Trangias can use both gas and methylated spirits. There are some cheaper individual burner alternatives but remember that every participant must be trained in their use. Low level gas burners are a great option, being lightweight, small and stable.

Staying safe

You can find the DofE Stove safety instructions at

www.DofE.org/go/expeditiondownloads.

Watch a Trangia 'how to' video at www.DofE.org/go/trangia2.

- Keep your
 Trangia burner
 in the yellow
 plastic bag
 provided to stop
 meths tarnishing and
 corroding your stove.
- Remember to adjust your lower windshield to allow the optimum flow of air to get to the burner.
- Always use a purpose made fuel bottle with a safety valve to carry your meths in.

□trangia



- Many DofE centres provide stoves and fuel so remember to check with yours first.
- 2 Like all specialist kit, buy what you will use. The more regularly you use it, the more it might be worth spending.
- Make sure you get expert advice on how to transport and store fuel. You must have the right fuel container.

Campcraft & cooking

Camping kit can be seen as an extra expense, but it's worth getting robust kit, particularly at Gold where it has to last many days.



Weight can quickly build up so using specially designed camping gear can help.



Each participant should be able to carry at least two litres of water, so get large water bottles.





Find out more and get ideas, menus and tips at www.DofE.org/food.

You can save money on camp kit by using any lightweight household/ disposable items like plates or cutlery.



Test them before the practice expedition and show them to your Supervisor.

- Expedition ready meals are designed to be high energy, low weight, easy to cook and easy to fit into your rucksack.
- To help you cook, you can add scratch marks on the inside of your drinking mug to turn it into a measuring jug.
- Pack plenty of snacks to graze on.



Download the BTBT DofE menu planner at www.DofE.org/go/vestey

Before you buy:

- Pack as many calories into the least weight/volume as possible while still having a balanced diet. You'll need 3,000-5,000 calories a day.
- 2 Choose food you like to eat, that will keep and is quick and easy to cook. Plan meals you can cook and eat as a team. Save a treat as part of your emergency rations.
- Waterproof' food (Ziploc bags work well) and ensure it can withstand being squashed.

Safety: navigation

DofE expedition teams use maps and compasses to navigate. Every team must have with them full OS maps and sufficient compasses to allow for effective navigation and safety.



Most foot teams use a 1:25 000 scale map, but cyclists may prefer a 1:50 000 scale one.



Always try and use a map case, even if using laminated active maps and laminated route cards, it keeps everything together and provides the best protection against rain.



If your expedition runs over two maps, you can have one custom made by Ordnance Survey (<u>www.DofE.</u> org/qo/osmaps).



Talk with the team and see if you can share any kit that needs to be borrowed or bought.



Compasses are easily lost so tie them to you rucksack or jacket with a long piece of string that can also be used to measure distances on your map.

- Do not store compasses near anything that is magnetic.

 Experitions
- Before setting out, check your compass has not become depolarised (points S not N) by comparing it to which direction in your house is north.
- Polarised compasses can be fixed by running a strong 'south' magnet along the 'north' length of the needle. Silva offer a free service to repolarise compasses.





- Many DofE centres provide maps, map cases and compasses so talk to your Supervisor before buying.
- 2 UK walking expeditions need to use OS maps, usually 1:25 000. You can get laminated water resistant 'active' maps which are durable.
- At Gold level compass work is inevitable so try to have one each, three per team is probably the minimum.

Safety: first aid

Every DofE participant needs to have some kind of first aid kit, a whistle, emergency rations and a survival bag.









Check that the first aid kit has plenty of plasters, blister plasters and disposable gloves; they are what get used the most.

Participants often forget to prepare for hot weather, so check the forecast and make sure you have sun cream (and after-sun cream) if it is needed.

You must have a survival bag, but many DofE centres may have ones that they can lend to you.



• An easy way to be safer on your expedition is to use an LED head torch rather than a handheld one. It lets you keep both hands free and the light is always pointing where you are looking.





- Talk to your Supervisor and find out how much first aid kit you need.
 Gold expeditions will need more than local Bronze ones.
- 2 Take a blister kit.
 Prevention is better
 than cure so put some
 plasters on where
 you have had blisters
 before to protect your
 feet from the start.
- Ensure that your personal first aid kit allows for allergies, conditions or medication you may have or need.

Making your kit last

- Don't store sleeping bags in their stuff sacks, it crushes the filling and reduces insulation. Store hanging up or in a bin bag.
- Clean your boots (and rucksack) immediately after use to prevent acidic materials from damaging them.
- Most boots have insoles/footbeds which you can remove to ensure the whole boot is aired and dried.
- Use a material enhancer (like Nikwax Tech, Tent or Direct washes) on **boots**, **waterproofs**, **tents** and **rucksacks** to maintain water resistance and material integrity. Don't use normal washing powders on your waterproofs.
- Dry and air **tents** (and **drybags**) completely before storing. If you have to wait at the end of the expedition for the minibus, and it's not raining, pitch the tent to let it dry. Don't machine wash tents. Store all parts together. Count pegs after the expedition and replace damaged ones.
- Re-wash Trangias and all cooking equipment when you get home to make sure they are completely clean.

The best advice is to take care of your kit.

Clean and dry it after use and store it in a dry location. Thoroughly check your camp site before departing so nothing is left behind and have a checklist for valuables.

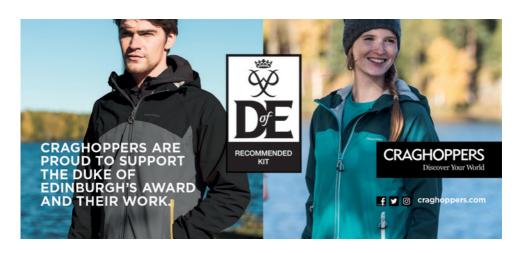
- Most rips and tears can be professionally fixed for much less than buying a new product.
- For ad-hoc DIY repairs use a product like tear-aid rather than duct tape as it won't damage the tent if removed for a more permanent repair.



- Fully clean and dry any drinking pouches and store in a freezer to stop mould growing.
- See if you can get
 a 'footprint' for your
 tent. It is an additional
 groundsheet that helps
 the actual tent last
 longer and makes it
 easier to clean.
- Keep small items together in a Ziploc bag in the top of your rucksack so you know where they are for next time.
- Keep your compass in a compass case to prevent scratches and cracks.
 Remember to store compasses away from anything magnetic.







"Having the right kit can make or break an expedition, particularly in wild county. This guide should be used by all participants preparing for their expedition to ensure that being in the hills and mountains is a safe and enjoyable experience."

Helen Barnard

Plas y Brenin Course Director/Instructor

"Having good kit can make the difference between a successful and enjoyable expedition and one that is remembered for all the wrong reasons. This guide will help participants and parents choose kit that is right for them."

Alasdair Offin

Assessor Network Co-ordinator, Lowther Hills, and former DofE Manager

"This guide is a 'must have' for parents – or indeed anyone purchasing expedition equipment for the first time! A common sense approach and full of good advice."

Mary Harper

DofE Manager, Dorset

"The Expedition Kit Guide has been an outstanding success. The information and advice in it is excellent for participants and, literally, valuable to parents. It has proved to be an excellent resource when training participants and especially useful when training new Leaders, Supervisors and Assessors."

Norry Barber

DofE Manager, Kent



The Duke of Edinburgh's Award is grateful to our partners below for their support of the publication of this *Expedition Kit Guide*:



www.vango.co.uk



www.cotswoldoutdoor.com



www.craghoppers.com