

## WARNING!

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Open to remove your Survival Spinner. Remember – take great care of this essential piece of kit. Your life could depend on it! All good explorers look after their equipment...



... but the best ones know how to adapt! If you lose your spinner, make your own. You can unfold the end of a paperclip and keep it in place with a pencil through the loop.

With special thanks to William Costello and Sam Corcoran.

E.H.

Dedication here

R.F.



# SPIN TO SURVIVE FROZEN MOUNTAIN

WRITTEN BY EMILY HAWKINS






ILLUSTRATED BY R. FRESSON

## ABOUT YOUR ADVENTURE


Welcome, brave soul! You are about to embark on a dangerous adventure across a wild, rugged landscape. You must decide which route to take and which hazards to face. The Survival Spinner enclosed will help determine your fate. On every page, you have a decision to make. In places, you must choose which circle to put your Survival Spinner in, then spin to discover where your adventure will take you next. In the mountains, one bad decision can lead to disaster... Have you got the luck, knowledge and skill it will take to survive?

## ADVENTURE KEY

 Success! Keep going.

  Still alive... for now.

 Try again.

 You're dead! Back to the start!



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Hotel Grande Montagna  
Strada Bianca 38  
Aosta  
Italy

Dear Frankie,

I'm so glad you've agreed to join me on this trip to photograph wolves in the Alps. Over the years, my job as a wildlife photographer has taken me on many adventures, from trekking through the Sahara Desert to camping out in the Amazon jungle. But for me, nothing compares to the thrill of being in the mountains. I hope you will learn to love them as I do!

I am sending you my journal, which contains all the information I have learned about survival in mountainous conditions. You may think your old grandpa is being over-dramatic, Frankie. If all goes to plan, you'll not need any extreme survival knowledge. But it always pays to be prepared, for you never know what the mountains have in store: we may have to face freezing blizzards, dangerous terrain and even avalanches.

Read up, youngster, and you'll be ready for anything. After all, we can't have you getting into any scrapes... I've promised your mother I'll take care of you!

Until next week then, with love,  
Grandpa Harry

P.S. I've enclosed a list of things you need to pack.

### Don't forget to pack:

- Sleeping bag
- Thermal roll-mat
- Bottle of water
- Bag of nuts (for emergencies!)
- Waterproof matches
- Pair of binoculars
- First-aid kit
- Penknife
- Map of the area
- A camera



It is essential that your backpack has a water-proof liner!

### What to wear



Layered coats:  
warm jacket and  
waterproof shell



Ski gloves



Mountain boots  
(warm and waterproof!)  
and woollen hiking socks



Winter hat



Strong,  
lightweight trousers



Thermal  
underlayers



In the mountains, you must be ready to face all sorts of dangers. The temperatures in the Alps can fall below  $-30^{\circ}$  Celsius, which is seriously cold! In places, you may have to contend with up to 12 metres of snow, as well as deep crevasses, dangerous rockfalls and deadly avalanches. If you fail to prepare, you should be prepared to fail.



Throughout this book you will find pages from Grandpa Harry's survival journal. You may want to read these as you go, or follow the adventure story first. You can always go back and look at the journal pages later.

# LOST IN THE MOUNTAINS

**What a view!** You are soaring over the Alps in a helicopter. The pilot, Sophia, picked you up at Turin airport, and now you're on your way to meet Grandpa Harry at his mountain camp. Over the roar of the rotor blades, you tell Sophia the plans for your trip. Bang! The helicopter shudders. You glance out of the window and see clouds of smoke billowing behind you.

**"Mayday, Mayday, Mayday!"** repeats Sophia into the radio. Her hand tightens around the control stick. *"The engine's blown! I've lost power. I'm going to try and bring her down, but I'm not sure we'll make it."* She gestures towards the rear of the chopper. *"Quick – grab a parachute. You need to jump."*

You scramble into the back, pick up a chute and – with trembling hands – start strapping yourself in. You've seen it done before, but your memory is hazy. You can only hope you've fastened the straps properly. *"Now!"* says Sophia. *"It's time!"* The door opens and you're confronted with a dizzying sight. You grab your backpack, reach for the parachute cord, and jump...



You land heavily, but in one piece. For a few seconds, your heart soars – you survived the jump! But then you look around. You are surrounded by snowy peaks, reaching as far as the eye can see. You are stranded: lost and alone on a frozen mountain. Taking some deep breaths, you try not to panic – you know Grandpa Harry would tell you to stay calm. You weigh up your options: in many similar situations, the advice would be to stay put and wait for rescue, but you won't survive out here in the cold for long.

Perhaps you should head uphill in the direction the helicopter went down? You heard Sophia send an emergency radio message, so maybe rescuers will be sent out to look for the crash site? Plus, Sophia may be injured and might need your help...

Or maybe you should head down into the valley to try and reach a mountain village? You can see a stream that might lead towards civilisation, and somehow it feels sensible to travel downhill rather than uphill in this rugged landscape...

Suddenly, you remember you have a map from your grandpa in your backpack. Perhaps the smart choice would be to use the map to find his mountain camp? It can't be far away, after all... **Time for your first decision!**

## SURVIVAL PRIORITIES

REMEMBER THE 'RULE OF THREE':

1. In a harsh environment, you can survive for about **THREE HOURS** without shelter or protection from the extreme cold or heat. In the mountains, the cold is your enemy.
2. You can survive for around **THREE DAYS** without water. Of course, this is only a guide, and you shouldn't try to push your body anywhere close to this limit. After seeking shelter, your next priority should be to find a clean supply of water. Dehydration can kill.
3. You can survive for up to **THREE WEEKS** without food (if you have water and shelter). But in a snowy environment, it's important to keep eating to give your body the fuel it needs to fight the cold.

### STOP TO SURVIVE

#### STOP

First, calm yourself down. Get your breathing and heart rate under control. Remind yourself that many people have managed to survive in similar situations.

Realising that you are lost in the wild can be frightening, but it's important not to panic. Panic can lead to dangerous decisions. Before rushing into anything, remember to STOP:

#### THINK

Try to think calmly about what to do: your brain is your most important survival tool. Every survival situation is different. What do you have with you that could help you?

#### OBSERVE

Look carefully at your surroundings. Does anything look familiar? Can you see a road or a river nearby?

#### PLAN

Make a plan of action. Once you have a plan, it will be much easier to stay focussed and stay positive.

To head uphill to find the helicopter, GO TO PAGE 8

To look for Grandpa Harry's camp, GO TO PAGE 28

To go downstream towards the village, GO TO PAGE 34

# BLIZZARD!

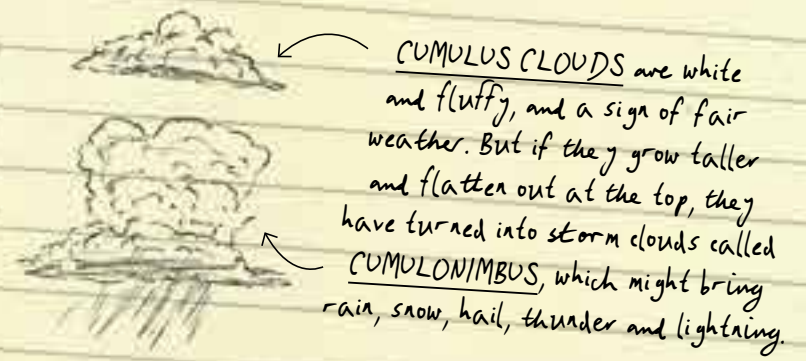
You decide to head up into the mountains towards the site of the crash. Using your binoculars, you spy a plume of smoke in the distance, which must be coming from the helicopter. You have no idea how far away it is, but at least you know which direction to aim for. As you make your way along a mountain ridge, the sun is behind you. You look at your watch – it's close to midday, so this means that you must be heading roughly north.

You've been walking for an hour or so when the wind picks up, clouds begin to gather above you and flakes of snow start to fall. At least you've got your warm jacket, you think. But the weather is getting worse. Soon, the snow is swirling around you, and you feel as if the piercing wind could drive you off the mountain. Your fingers are numb, and it's hard to see more than a metre or two in front of you. Should you stop to make a snow shelter or should you head down to lower ground where the weather might be better? Time to decide!

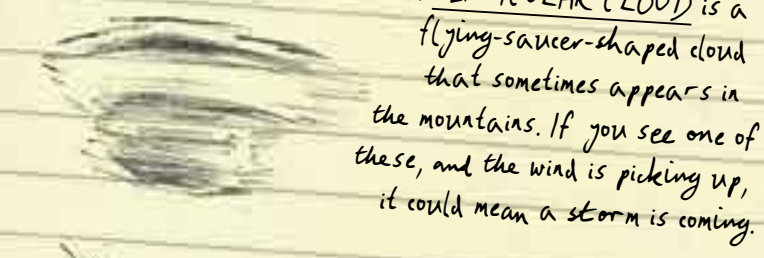
Place your **Survival Spinner** in one of these circles, depending on your choice. **Spin to find out what happens next.**

## READING THE CLOUDS

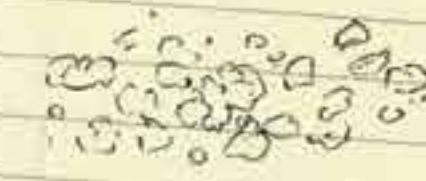
One of the biggest dangers in the mountains is the weather, which can change very quickly. You should always be prepared and flexible in your plans: if the weather takes a turn for the worse, head to safety. Learning to read the clouds should help.



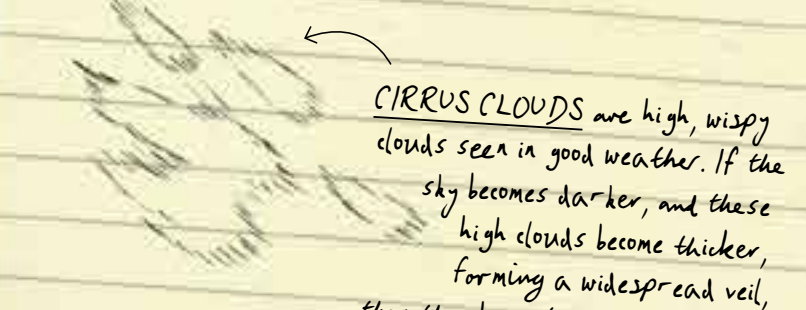
**CUMULUS CLOUDS** are white and fluffy, and a sign of fair weather. But if they grow taller and flatten out at the top, they have turned into storm clouds called **CUMULONIMBUS**, which might bring rain, snow, hail, thunder and lightning.



A **LENTICULAR CLOUD** is a flying-saucer-shaped cloud that sometimes appears in the mountains. If you see one of these, and the wind is picking up, it could mean a storm is coming.



**ALTOCUMULUS** are mid-level clouds that usually mean settled weather.



**CIRRUS CLOUDS** are high, wispy clouds seen in good weather. If the sky becomes darker, and these high clouds become thicker, forming a widespread veil, then they have turned into **CIRROSTRATUS** clouds, which might bring rain or snow.



**STRATUS** are the lowest types of cloud. They form a layer of fog or mist, and may bring drizzle but not heavy rain.

**NIMBOSTRATUS** clouds make dark, low-hanging blankets, bringing rain (or snow in colder weather).

### MAKE A SHELTER



As luck would have it, you stumble on a fold-up snow shovel in a snow drift! **GO TO PAGE 10**

You can't build a decent snow shelter without a shovel. You freeze to death! **GO BACK TO PAGE 6**

You see a mound of snow with something sticking out of it, but you can't quite make out what it is... **SPIN AGAIN**

### HEAD TO LOWER GROUND



The blizzard makes it nearly impossible to see. Blindly, you step forwards... right off a cliff! **GO BACK TO PAGE 6**

The wind and snow ease up as you head downhill. But just as you start to relax, you lose your footing and slide some distance down the mountain. You dust yourself off, and notice a fold-up shovel sticking out of a snow drift. You add it to your backpack. **GO TO PAGE 18**

The blizzard seems to be getting worse, but you manage to carry on **GO TO PAGE 36**

# MAKING A SHELTER

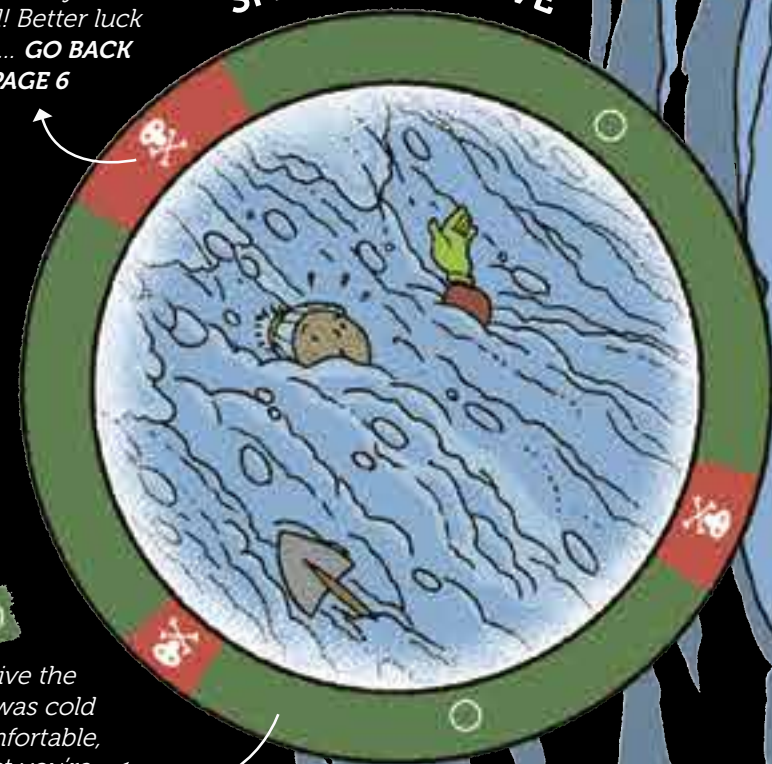
You have to get out of this blizzard! Thank goodness you found a shovel – making a snow hole will be much easier now. Slowly and carefully, you climb down to the side of the ridge that's sheltered slightly from the wind. You start digging in a deep bank of snow, gradually opening up a tunnel big enough to crawl into. What a relief to be out of the wind! You keep going until you've hollowed out a space inside, then you use your backpack to block the entrance (not forgetting to poke an air hole in the roof). You lay out your roll-mat to keep you off the frozen ground then, exhausted, you snuggle inside your sleeping bag. You drink some of your water and eat a few nuts. The storm keeps up as night falls, and you doze fitfully, grateful to be under cover.

Place your Survival Spinner here, and spin to see whether you'll last the night...

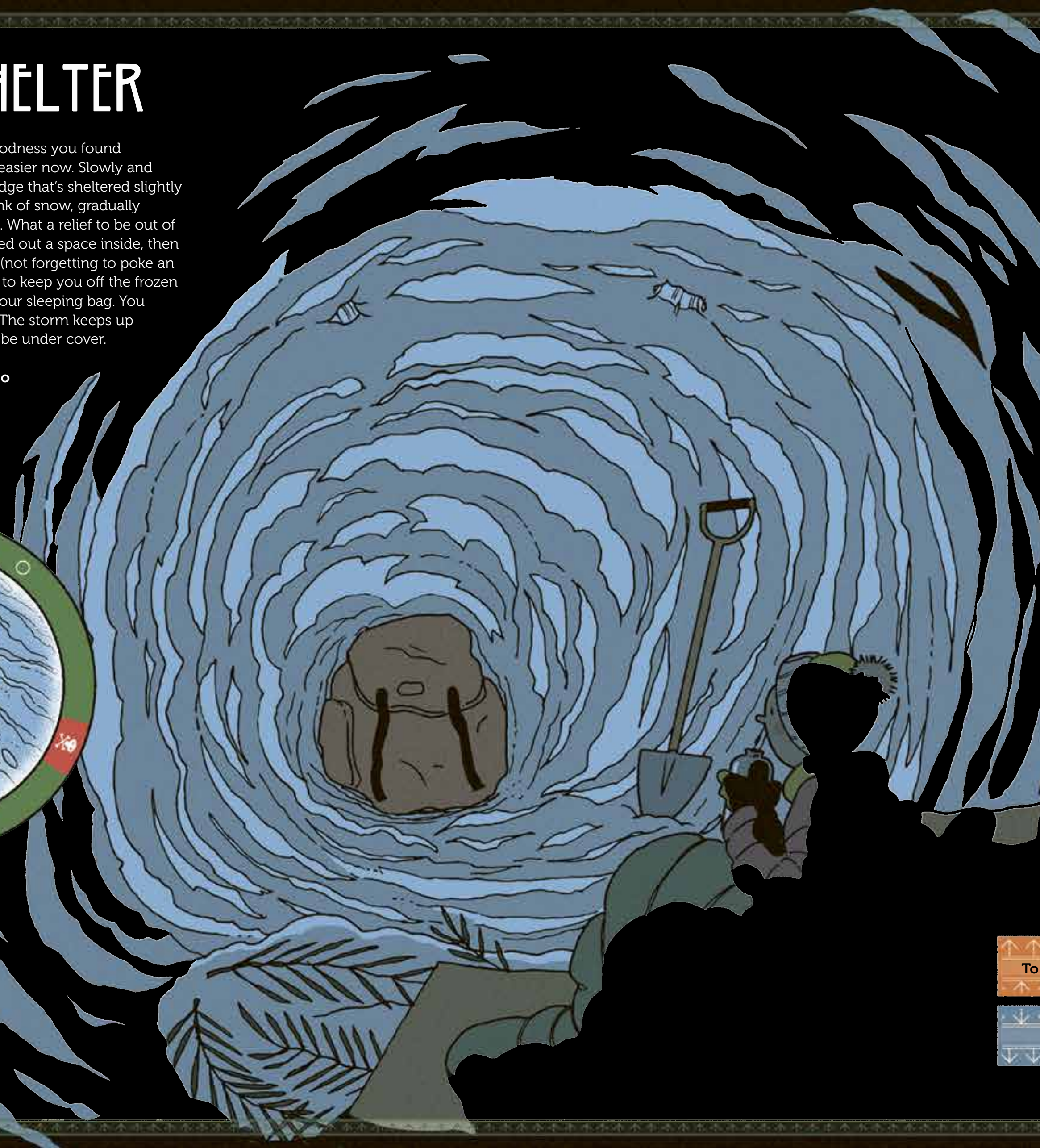


Your snow shelter isn't up to scratch. It caves in overnight and you are smothered! Better luck next time... **GO BACK TO PAGE 6**

**SPIN TO SURVIVE**



You survive the night – it was cold and uncomfortable, but at least you're alive. **READ ON**



## HOW TO MAKE A SNOW HOLE



A snow shelter is a great way to avoid the worst of the weather: however cold it gets outside, the temperature inside will stay fairly constant. Start by finding a large slope of snow. Dig a tunnel, preferably with the entrance facing away from the wind. Hollow out your cave, making it large enough to sit up inside, then smooth off the ceiling so it doesn't drip. Remember that cold air sinks, so make yourself a raised platform for warmth. You can insulate this with a roll-mat or some fir branches. Keep a stick inside the shelter to poke a few air holes in the ceiling so you don't suffocate, then block up the entrance with something bulky. Lastly, remember to keep your shovel inside with you. You may need to dig yourself out after the storm has passed!

You are woken by the morning light filtering in. Stiffly, you crawl outside, stretch and look around. Thankfully, the weather has cleared. You can't see the smoke from the helicopter any more, but you feel confident you can remember which direction you were heading in. You continue along the mountain ridge, which takes you higher and higher. After several hours, you begin to feel sick and dizzy. Is the altitude getting to you, you wonder? Should you keep climbing, towards the site of the crash, or should you head downhill to give your body time to acclimatise to these heights?

To keep heading uphill towards the crash site, GO TO PAGE 14

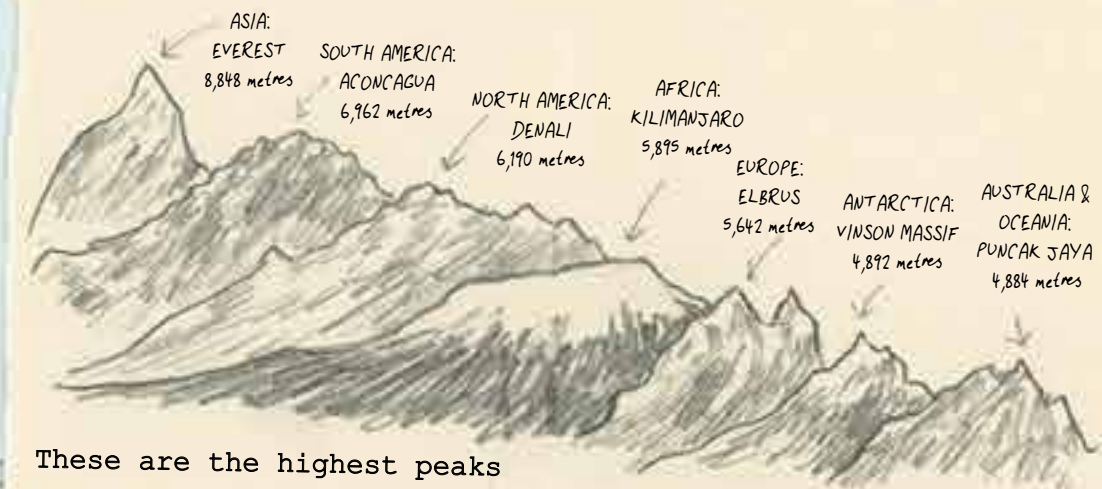
To go downhill, GO TO PAGE 18

# THE ROOF OF THE WORLD

You make your way along a rough track beside the fast-flowing river, gradually climbing higher and higher. It's tough going, but at least the exertion is keeping you warm. You stop to rest for a minute, turning around to see how far you've come. The mountains seem to stretch for miles, with soaring peaks rising on either side of you. You think you can make out the towering pinnacle of Mont Blanc, the highest mountain in the Alps, in the distance. It's spectacular, but you don't have time to admire the view. Not far away, you spot a rickety old hut – probably a shelter for climbers. The door is stiff and at first you think it's locked, but after a few shoulder barges it flies open.

Breathing a sigh of relief, you look around the cabin. It's very basic, but there's a bed and a stove – perhaps you should stop here for the night? But you know Grandpa Harry will be worried about you. You decide to stick to your plan and try to make it to his camp before nightfall. But as you're about to leave the cabin, you find something useful to take with you. **Spin to find out what you have discovered...**

## THE SEVEN SUMMITS

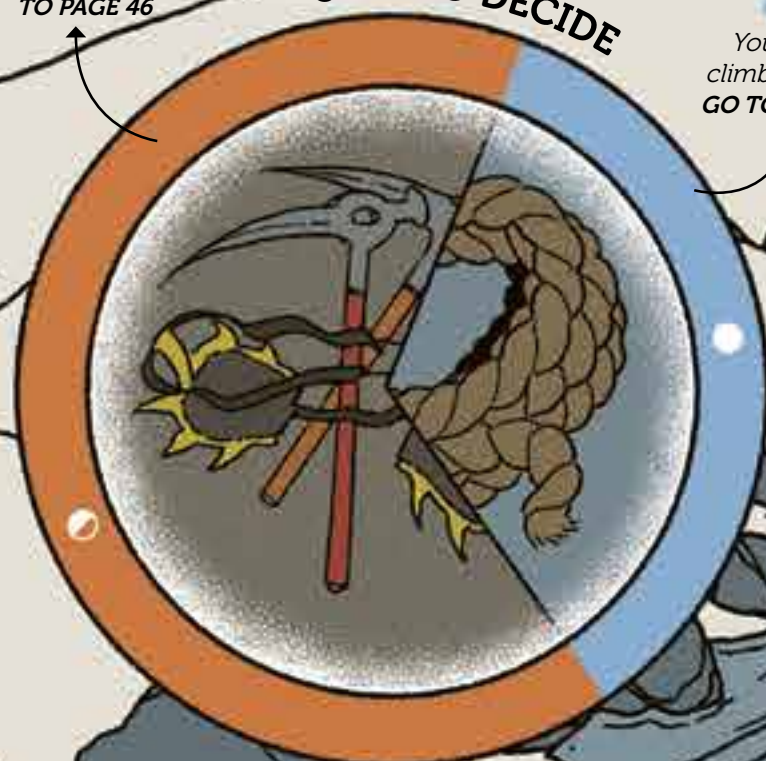


These are the highest peaks on each of the globe's seven continents. Reaching the summits of every one of these mountains is seen as a holy grail, or crowning accomplishment, for many climbers around the world.

You find two old ice axes and some crampons. **GO TO PAGE 46**

**SPIN TO DECIDE**

You find a climbing rope. **GO TO PAGE 46**




### REAL-LIFE SURVIVORS

The American mountaineer Pete Schoening made history in 1953 when he saved the lives of five companions on the

world's second-highest mountain – the Himalayan peak K2. The crew got into trouble trying to descend in a blizzard, while carrying an injured climber on a makeshift stretcher. The team were roped together, but when one of them lost his footing, the whole group were dragged down a steep slope. They ended up dangling from a huge precipice, saved only by the fact that Schoening had wedged his ice axe behind a boulder. The rope was wrapped around his waist, secured by the axe. In climbing, this kind of fixed anchor point is called a 'belay'. Schoening managed to hold the axe firm, supporting the others until they could clamber to safety. His remarkable strength and bravery earned him a place as a mountaineering hero.

# THE DIZZY HEIGHTS

You decide to push on, continuing up the mountain. The helicopter can't be far away, you think, and it would feel like a defeat to turn back. You're now above the clouds, looking down on the snowy peaks all around you. But the higher you climb, the thinner the air becomes. You're struggling to breathe – you can't seem to take in the oxygen you need. Your legs feel leaden, your head is pounding and the landscape appears to blur and swim in front of you.

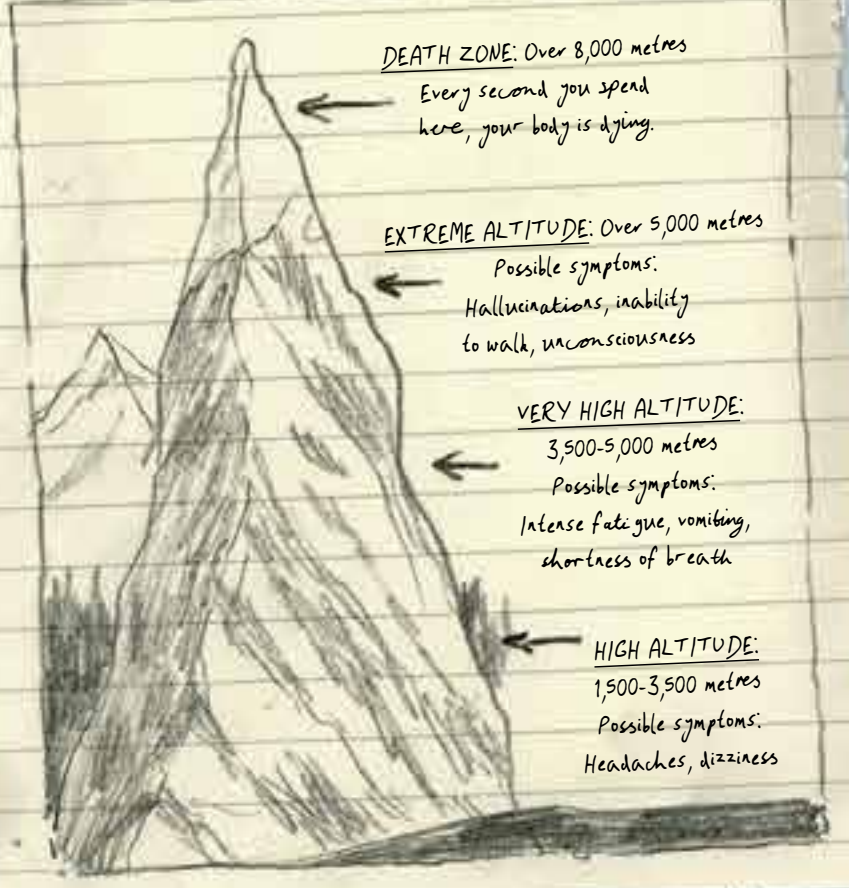


**REAL-LIFE SURVIVORS**  
REINHOLD MESSNER & PETER HABELER

**MOUNT EVEREST** – the tallest mountain in the world – measures 8,848 metres. Climbers who try to tackle it have to take oxygen with them. But in the 1970s two mountaineers called Reinhold Messner and Peter Habeler managed to climb Everest with no extra oxygen. The final part of the ascent was so difficult that the pair collapsed in the snow every few metres, barely finding the strength to crawl forwards. Later, Messner said he felt as if his mind was dead, and only his spirit urged him on.

### INTO THIN AIR

In the mountains, people can suffer from altitude sickness, caused by a lack of oxygen in the air. The higher you go, the less oxygen there is. This can lead to difficulty breathing, dizziness, confusion, sickness and headaches. Once you get above 8,000 metres you enter the Death Zone, where the human body shuts down completely. Mountaineers usually combat altitude sickness by carrying extra oxygen, and by gradually climbing no more than 500 metres a day, so their bodies can acclimatise.



- DEATH ZONE:** Over 8,000 metres  
Every second you spend here, your body is dying.
- EXTREME ALTITUDE:** Over 5,000 metres  
Possible symptoms: Hallucinations, inability to walk, unconsciousness
- VERY HIGH ALTITUDE:** 3,500-5,000 metres  
Possible symptoms: Intense fatigue, vomiting, shortness of breath
- HIGH ALTITUDE:** 1,500-3,500 metres  
Possible symptoms: Headaches, dizziness

You realise that you must be suffering from altitude sickness – you've climbed too high, too quickly. As you sink to the ground, you see something glinting nearby. From beneath a rock, you prise out a metal canister. It's a bottle of oxygen left behind by another climber! It must be your lucky day – this is just what you need.

Place your Survival Spinner here, then spin to find out if the canister is empty or full...



### SPIN TO SURVIVE



The canister is empty! Gasping for breath, you realise that you should have turned back sooner. You can't go on – the mountains have beaten you this time!  
**GO BACK TO PAGE 6**

The canister gives you just enough oxygen to stand up and keep walking. You change course and head downhill to acclimatise.  
**GO TO PAGE 18**