

8 | ESSENTIAL KIT

A well-packed rucksack will hold everything you need for your expedition. But you must think carefully about what you take, so that you keep the weight down.

Your rucksack should be strong and comfortable to carry

TOP TIPS

- Carry a magnifying glass for looking at insects and small plants, and a pair of binoculars for looking at wildlife and to help with navigation.
- Use a camera to record what you see.

TORCH

A reliable torch is essential. It's vital at night, but also useful during the day to see into dark corners and crevices. A wind-up torch is a good idea, as you never need to worry about the batteries going flat.

You can also use your torch for sending Morse Code signals. For example, to signal SOS in an emergency, flash three short flashes, then three long ones, and end with three more short flashes.



CLOSE AT HAND

Pack these items where you can get to them quickly.


-  Essential kit, such as maps, compass and knife, should always be in an outside pocket.
-  Always carry a first aid kit (see below).
-  Strap your tent to the bottom or side of the rucksack.
-  Carry a journal with you so that you can record your thoughts and experiences straight away.


Be sure you have plenty of outside pockets for easy access.



9 | A fully packed rucksack may weigh 20 kilograms (44 pounds).


FIRST AID KIT


 **Scissors**
For cutting bandages to size.

 **Plasters**
Keep cuts and wounds clean.



Waterproof case
Keeps everything together and dry.

 **Antiseptic wipe**
Use to clean wounds and stop infection.

 **Bandage**
Use to wrap around sprains.

Creepy crawlies abound in the rainforest, and the ground is wet, so the best place to sleep is in a covered hammock or on a canopied platform in a tree.

It's important that your sleeping area is covered so you don't get bitten by insects at night.

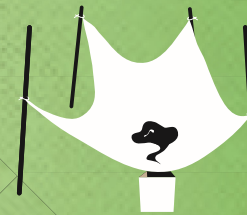


COLLECTING WATER

Finding water for drinking isn't hard in the rainforest – it rains... a lot!

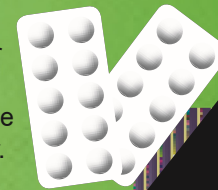


1 Look for rainwater in the creases of large leaves.



2 Make a rainwater collector using a sheet of plastic. Stretch it out over four sticks pushed into the ground, and let the water run off into a plastic container.

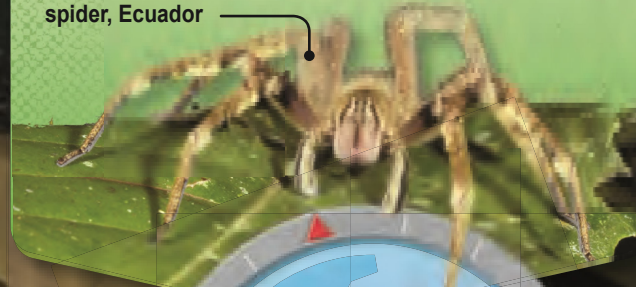
3 Collect water from rivers or streams. But remember the water may contain bacteria that can make you ill, so you must sterilize it using tablets or a special filter.



SPIDER ALERT!

Lying in your hammock at night, you may hear spiders dropping onto the cover above you. If you don't like spiders, this may keep you wide awake!

Venomous wandering spider, Ecuador



TOP TIP

In the morning, when you're ready to get dressed, remember to give your clothes a good shake to make sure that no insects have crawled into them during the night.



This may surprise you, but not all deserts are hot! Antarctica is very cold, but it's still called a desert because it gets so little rain or snow a year. At the other extreme is Africa's Sahara Desert, the biggest hot desert in the world.

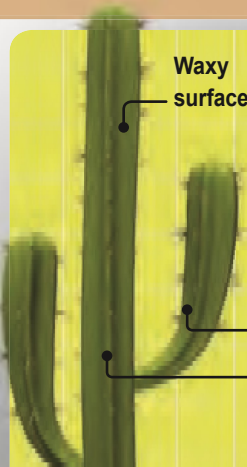
SCORPIONS, SPIDERS AND SNAKES

Many types of scorpion, spider and snake lurk under rocks or in burrows during the day to escape the heat. At night, when it's cooler, they emerge to hunt for food. Some of them are dangerous to humans, so you need to watch out!



A desert wolf spider emerges from its burrow, ready to chase its prey.

ADAPTATIONS



Waxy surface

Plants have adapted to desert conditions in various ways. Cacti have a waxy layer on the outside to stop moisture from evaporating, and their sharp spines stop animals from eating them.

Spines

Fleshy stem stores water

DESERT MAMMALS

With so little water, deserts are harsh environments for mammals, but many have adapted and thrive there. Hot deserts are home to mammals such as camels, fennec foxes, gazelles and fast little jerboas.



Jerboas bound along on their long back legs.

The fennec fox radiates body heat from its huge ears.



Did you know ?

The desert with the hottest temperature ever recorded is the Lut desert in Iran, where a satellite detected a temperature of 70.7°C (159.3°F).