



Deserts

Deserts are mainly hot places with very little rainfall. Very few plants and animals can survive such difficult conditions.

Deserts are places where the rainfall is small and very unreliable. Most deserts are hot and sunny, so coping with drought is the main problem for any living thing in a desert (Picture 1).

Plants with a short life

Plants are adapted in two ways. One group is annuals, whose seeds lie in the desert soil until rain comes. Then, they race to **GERMINATE**, grow, flower and set seed before the ground dries out. This may all happen in just a few weeks.

Plants that grow slowly

The other group of plants is perennials. Between rainfalls they simply stop growing.

Some desert perennials have deep tap roots to find water, even when it has seeped deep underground. To prevent losing water, they have small, waxy leaves with few pores.

Others, such as the cactus, store water in fleshy stems that can swell with water. They have no leaves at all: their green stems make all the food they need.

Animals in the desert

Animals, too, face the problems of getting water, avoiding the heat and finding food. Like mountains, deserts provide little food and so few animals can live there. Those that do each need a large territory if they are to find enough to eat.

Many desert animals burrow into the sand, or shelter in the shade, during the heat of the day and only come out after dark. At night, the temperature falls sharply and dew is quite common. Many animals get all the moisture they need from the late night dew.

Camels are one of the few desert animals that move about during the day. Camels can survive when they have lost almost a third of their body water. This is more than twice as much as most animals can lose. When they do find water, camels can drink a fifth of their body weight in ten minutes.

The hump of the camel is where it stores fat. This fat allows it to survive, even if it cannot find food for weeks. Camels also have thick fur to protect them from the heat, and pad-like hooves to make it possible to travel across soft sand.



▼ (Picture 1) Some of the many adaptations that animals and plants have to help them survive in the desert.

Scorpions use the poisonous tip of their tail to kill their prey and defend themselves. They get all of the water they need from the food they eat.



Pincers to grab prey.



Eagles and vultures fly at great heights to spot prey or dead animals.

The cactus stores water in its stem, has no leaves and has protective spines to stop animals from eating it.

Desert foxes are **NOCTURNAL** scavengers and crafty hunters. They are able to dig out the burrows of kangaroo rats and even eat scorpions. They have large ears and eyes because they only feed at night. They have a keen sense of smell to find rotting meat.

Lizards use camouflage and quick movements to escape hunters.

Sidewinder snakes move across sand in a special way, so that only a small part of their skin rests on the burning hot surface at any time. This way of moving also prevents the snakes from sinking into the soft sand.

Kangaroo rats come out in the cool darkness of the night. Their long legs allow them to run very fast to escape predators such as snakes and foxes. They are adapted to get all the water they need from the moisture in the seeds they eat.

Plants such as the creosote bush have very long tap roots to find water. As with many plants in the desert, they also have small, leathery leaves.

Summary

- Deserts are hot places with very little water and very unreliable rainfall.
- Plants adapt by storing water, and having long roots and small leaves.
- Animals have adapted by being nocturnal, or by storing water and food in their bodies.

