

# Autumn 2- Hot and Cold Deserts

Key Vocabulary	Definition
<b>Desert</b>	A dry, or <b>arid</b> , place. They can be hot or cold, their key feature is the very low levels of rainfall.
<b>Desolate</b>	Without those things necessary or desirable for life; bleak barren or inhospitable.
<b>Climate</b>	The average measurements of temperature, wind, humidity, snow, and rain in a place over the course of years. It is different to the weather.
<b>Arid</b>	Very dry and not having enough rainfall to support agriculture.
<b>Oasis</b>	A unique water landform surrounded by desert. It has a water source underground and supports vegetation and animal life.
<b>Drought</b>	Long periods of time without rain.
<b>Desertification</b>	When land gradually changes into a desert, usually because of extreme climate change.
<b>Biome</b>	A large region of Earth that has a certain climate and certain types of living things. E.g. forests, grasslands, deserts.
<b>Nocturnal</b>	Active at night.
<b>Climate change</b>	Climate change is when there is a big difference in normal climate patterns over a long amount of time.
<b>Xerophytes</b>	Specifically adapted plant species for desert life, e.g. cactus.



## Fun Links to help with my learning:

- <https://easyscienceforkids.com/all-about-deserts/>
- <https://www.coolkidfacts.com/desert-facts-for-kids/>
- <https://www.dkfindout.com/uk/earth/deserts/>
- <https://www.natgeokids.com/uk/>
- <https://www.bbc.co.uk/bitesize/clips/zxcb4-wx>

## Virtual Tour:

- <https://www.youvisit.com/tour/cj3330/111222>

## Key Questions:

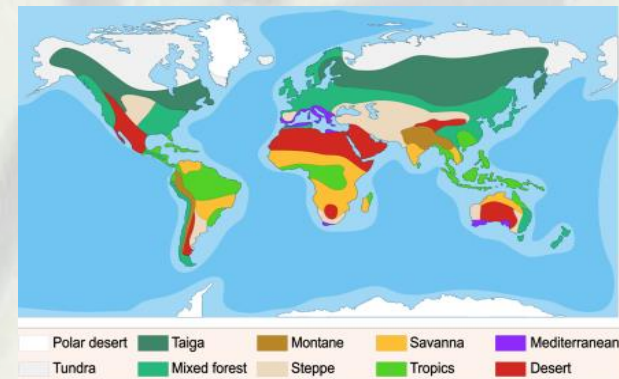
From the Hot to the Cold: What are the characteristics of a desert?

Around the World: Where can the deserts of the world be found?

Survival: How have animals and vegetation adapted to survive extreme desert conditions?

Desert Dwellers: What is daily life like for the Bedouin people of the Sahara Desert?

The Greatest Environmental Challenge: How does desertification impact upon our planet's wellbeing?



## Animal Adaptations

Fat is stored in the hump of the camel. This provides energy in times of food shortage in the desert. They don't store water in their humps!

Camels have two rows of eyelashes which are long and slit-like nostrils which help keep out the sand being blown around in the desert.



Thick fur on the top of the body for shade, and thin fur elsewhere to allow easy heat loss in high desert temperatures.

Large padded feet which allows them to spread their weight on the sand.

The desert fox is nocturnal. They sleep underground during the day when temperatures are high and come out at night when temperatures are cooler and more comfortable.



The desert fox has large ears which allows it to radiate body heat and help keep them cool in the hot desert environment.

The fox's feet are effective shovels for frequent digging — fennec foxes live in underground dens.

The fox's feet are hairy, which helps them perform like snowshoes and protects them from extremely hot sand.

## Vegetation Adaptations

Cacti are succulent plants which means they store water. They need to store water as rainfall is infrequent and unreliable.

The surface has a waxy coating which reduces water loss and avoids the plant drying out.



Cacti have needles which helps to reduce moisture loss and deters animals from eating the plant.

Cacti have shallow roots that sit just below the surface of the Earth and are up to 1m wide (heavy lateral branching). This is because it does not rain very often so the roots can absorb as much water as possible.

The large umbrella-shaped crown enables the tree to capture the maximum amount of sunlight, with the smallest of leaflets. It also provides shade for the soil below which helps reduce evaporation.

Small leaves reduce water loss through transpiration in the hot climate.



Acacia trees have developed short, fat trunks that act as reservoirs for excess water. This enables them to thrive during periods of no rainfall.

Deep roots (up to 50m) allow the acacia tree to reach water deep underground enabling them to survive drought conditions.

## Key Facts:

- Deserts are dry or arid areas that receive less than 250, of rain each year.
- Deserts can be hot or cold. They contain plants and animals that are specifically adapted to these extremely dry conditions.
- Most animals that live in the desert are nocturnal, they hide out in burrows during the day and come out at night when it's cooler.
- Deserts cover over 20.9 million square miles of the planet.
- Lots of plants and animals live in the desert. In fact, only rainforests have more kinds of life.
- Desert plants have padded leaves that store water during drought.
- Only around 20% (1/5) of the deserts on Earth are covered in sand.

## Places to visit to enhance your learning:



Dungeness,  
Kent UK



Sahara Desert Virtual  
Tour.  
See 'Fun Links'

