

## KS3 Geography: Ecosystems and biomes

### The wildlife and ecosystem of temperate savannas

If you ever manage to tick the Route 66 road trip off your bucket list you'll almost definitely find yourself driving through thousands of miles of *temperate grasslands*, or 'prairies' as they are known in North America.

Grasslands - as you might have guessed - are huge expanses of land made up of different types of grasses, where flowers and herbs also grow alongside. As well as the prairies in North America, they can also be found in South America - where they are known as the *pampas*; in Eurasia they are called the *steppes*; and in South Africa - where they are known as *savanna*; and Australia.

Summers in the prairies are typically warm and humid and lightning strikes often cause fires across the land. You wouldn't want to be standing next to a tree - you might get a bit of a shock! Thankfully that's pretty unlikely, as very few trees could survive with the low levels of rainfall and the thin soil. Winters are cold and the wide, open plains are often affected by strong winds, year round.

The prairies host more than 80 species of animals, including bumble bees and coyotes and 300 species of birds, such as burrowing owls - all of which have come up with ingenious ways of living in such a barren environment. For example, in the summer, bumble bees make their homes in the underground abandoned nests of small creatures, and the Queen survives the winter by finding a protected place to hibernate, leaving the rest of the bees to die off in the first frost. What a buzz kill!

Burrowing owls hang around with prairie dogs so that they can feed off the insects associated with them and use holes dug by the dogs as their nesting sites - talk about 'wise owls'!

Coyotes survive by being totally unfussy eaters - they eat anything from prairie dogs and rats in the summer to animal remains in the winter ... yum. They also have incredible hearing - which helps them to catch their prey - and their camouflage helps them hide in the dense grass.

The grasses on the prairies tend to be short and are ideally suited to the conditions. The frost-free summers allow for perfect growing conditions and they are able to survive the winters by remaining dormant. The grasses' flexibility means they can withstand the strong winds and, surprisingly, they can also survive those fires caused by lightning, because their stems can regrow after being burned off.

Other types of grassland grasses include a much taller type called big bluestem, which grows with very deep roots in the wetter parts of North America. In the 1930s settlers ploughed the big bluestem, which caused massive dust storms. They didn't realise the grass was actually keeping the dirt from blowing away.

Another type of grass native to the South American grasslands is called milkweed. The seeds of milkweed have adapted well to the windy environment: they have a silky tuft of hair which allows them to be blown by the wind, like little parachutes.

Temperate grasslands are ideal for growing commercial cereal crops and much of the prairies is farmed for wheat and increasingly *canola*.

Cattle, chickens and turkey are the main livestock reared in the grasslands. There are many food processing plants too. So when you're driving Route 66 in your Ford Mustang, the wind blowing in your hair, remember you've got big bluestem to say *gracias* to for being able to drive off into the sunset dust free!