

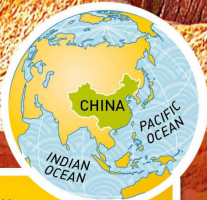
Find out about these amazing multicoloured hills...

# STRIPED SLOPES

Parts of China can get very chilly! In the town of Huzhong in northeast China, temperatures have dipped to -53°C. Brrrr!

An early form of football originated some 2,500 years ago in China.

In Chinese mythology a monster called Nian emerges on the eve of the Chinese New Year to eat people. Yikes!



Rainbow-coloured foothills stretch for miles, their bright ridges popping against the blue sky. Boasting red, gold, orange, yellow and blue stripes, the slopes look as if they belong in a sci-fi movie. But these formations are *real*, located right here on planet Earth. Part of **Zhangye Danxia National Geological Park** in north-central **China**, the incredible rock rainbows took **millions of years** – and a lot of shaking, rattling and rolling – to form.

## Lasting layers

The hills of Zhangye Danxia (pronounced JAN-yeah DAN-see-ah) are nestled in a basin against the **Qilian Mountains** in

China's **Gansu province**. Covering about 260km<sup>2</sup>, the slopes are more than 100m tall and many have stripes of several colours.

But how did these hills get their painted look? This landscape is made of layers of rock called **strata**. Similar to a **tiered cake**, it was created over millions of years, **one layer at a time**. The first sheet formed some 24 million years ago. Wind and water eroded parts of the land surrounding the basin, grinding it into **sediment** (or bits of rock). The pieces settled across the basin floor like a **thick blanket**, and eventually the sediment **hardened**.

Over time, changes in climate affected the rate of erosion and appearance of the sediment that was produced from rocks

surrounding the basin. And when erosion took place, a **new colour** of sediment drifted into the basin, in time creating another sheet of rock on top of the old one. This process happened over and over again until the basin was covered with **hundreds of layers**.

## Crunch time

The colourful formations in the basin at Gansu may have remained hidden under its top layer if it hadn't been for a geological event that literally shook up the whole region. The **outer layer** of the planet, called the **lithosphere**, is divided into huge **tectonic plates** that

are constantly moving. Sometimes the movement of these plates slowly **pushes up land** on the surface, eventually creating **hills and mountains**.

The plate that carries the land of **India** began to **collide** with the plate that holds the rest of **Asia**. The crash was so powerful that chunks of land buckled up near where Zhangye Danxia is located. Jagged mounds of earth rose over millions of years, **revealing the ground's multicoloured stripes**. The land was also tilted as it was forced up, which is why the layers run diagonally rather than horizontally. The wind and rain did their job, too, carving unusual formations in the rock.

## A colourful draw

With the spectacular landform's colours changing throughout the day depending on **time, daylight and weather**, the Chinese government declared Zhangye Danxia a national park in 2011.

Thousands of people visit the hills every year to check out **nature's ultimate art project**. But the rocky spot hasn't finished changing. Natural forces such as **erosion** continue to slowly transform the landscape. So the area may look totally different in another 24 million years. If only we had a time machine to check it out!

