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# How Mountains Form

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## What Are Mountains?

**Mountains** are very tall, rocky landforms that rise high above the surrounding land. Some mountains are so big that their peaks touch the clouds! But have you ever wondered how these enormous structures actually got there? It turns out mountains don't just appear overnight - they take millions of years to form.

## The Moving Jigsaw Puzzle

Imagine Earth's outer layer, called the **crust**, like a giant jigsaw puzzle made of massive pieces called **tectonic plates**. These plates aren't stuck in one place - they're constantly moving, very slowly, across the planet's surface.

Think of it like a rug being slowly pushed and bunched up - when you shove a carpet across a floor, it doesn't fold neatly. Instead, it crumples and creates wrinkles and bumps. Earth's rock does something similar!

## Collision and Crumpling

When **two tectonic plates bump into each other**, the edges of the plates get pushed upwards instead of sliding past each other. This happens because the rock is too thick and heavy to sink down easily. Over millions of years, these collisions push the rock higher and higher, creating massive mountains.

The most famous example is the **Himalayas** in Asia - the world's highest mountain range. The Indian plate has been crashing into the Eurasian plate for around **50 million years**, and the mountains are still growing today, by about **5 millimetres per year!**

## Other Ways Mountains Form

Colliding plates aren't the only way mountains appear. **Volcanic mountains** form when hot melted rock, called **magma**, erupts from deep inside Earth and piles up into cone shapes. **Block mountains** happen when the crust cracks and huge chunks get pushed upward.

Think of it like stacking building blocks – when tectonic plates push up, it's like someone stacking blocks higher and higher until they form a tall tower.

## **An Incredibly Slow Process**

Here's the mind-blowing part: mountains grow so incredibly slowly that you can't see it happening in your lifetime. But over millions of years, this tiny bit of movement adds up to mountains thousands of metres tall. It's one of Earth's most powerful and patient forces.