



Hidden Depths

The oceans can claim Earth's tallest mountain and deepest gorge.

When people are asked "What is the tallest mountain on Earth?" most would usually reply "Mount Everest."

It is true that Mount Everest is the tallest mountain above sea level. However, if you included ALL mountains on the Earth's crust (above and below sea level and measured from Earth's inner core), then you could argue that there are other contenders for tallest mountain on Earth.

When measuring mountains from base to peak, we find that:

- Mount Everest (Himalayas) is 8848 metres tall
- Mauna Kea (Hawaii) is 10 204 metres tall (with 4245 metres showing above sea level) and
- Mount Chimborazo (Ecuador) is about 6300 metres tall.

Mauna Kea is less well known as a tall mountain, because almost 60% of it is 'hidden' under the ocean. Its remaining 40% peaks above sea level for 4245 metres. This makes it appear to be about half the size of Mount Everest, which is 8848 metres.

Mountains near Earth's equator may be considered to be taller because of the shape of Earth. The equator gently bulges by an extra 21 000 metres due to the Earth's spin. So, if you measured from Earth's inner core to a mountain peak, Mount Chimborazo near Earth's equator could claim to be the tallest on Earth.

When measured from base to peak, Mount Chimborazo in Ecuador is about 6300 metres tall. Mount Chimborazo sits near Earth's equator. So, it could be argued that if you measured the height of Mount Chimborazo from Earth's core to its peak, it 'benefits' an extra 21 000 metres to become 27 300 metres.

Both Everest and Mauna Kea are positioned away from Earth's equator and they do not benefit from this extra 21 000 metre 'boost'! If you measured their height from Earth's inner core to their peak, they would be roughly 14 800 metres and 16 200 metres respectively.

The Earth's deepest gorge or trench is also found below sea level. Mariana Trench in the Pacific Ocean was measured at 10 911 metres in 1995. Yarlung Tsampo gorge in the Himalayan Mountains of China and Tibet is considered by most to be the deepest gorge on land. The Yarlung Tsampo gorge is still being explored by scientists, but some measurements show it is about 5900 metres at its deepest point.

More Information

Guinness World Records

Go to: Natural World<<Planet Earth <http://www.guinnessworldrecords.com>

Altitude of the Highest Point on Earth <http://hypertextbook.com/facts/2001/ChristinaWong.shtml>