HOW TALL IS TALL?

HOW SMOOTH IS THE EARTH?

We all know that the Earth has tall mountains, but compared to its size these are actually very small. If we were to shrink the Earth down to the size of a basketball, the tallest mountain would be less than **two hundredths of an inch** (or 0.2 millimeters) tall. That's about the size of the little bumps on a real basketball!

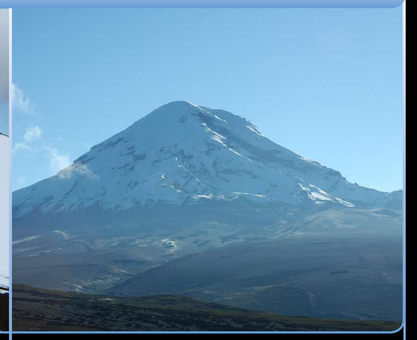
IS THE EARTH ROUND?

Actually, no it isn't. Because of its rotation, the radius of the Earth is actually **larger at the equator** than at the poles by about 0.3%. That's not much, but the Earth is so big that it adds up! The radius is larger at the equator by about 70,000 feet (21,000 meters). So, a mountain near the equator has a head start above the others!

TALL, TALLER, TALLEST?

The peak of Mt. Everest, located on the border of Tibet and Nepal, is higher above sea level than that of any other mountain on Earth.

From base to peak, Mauna Kea, on the island of Hawaii, is the tallest mountain on Earth.

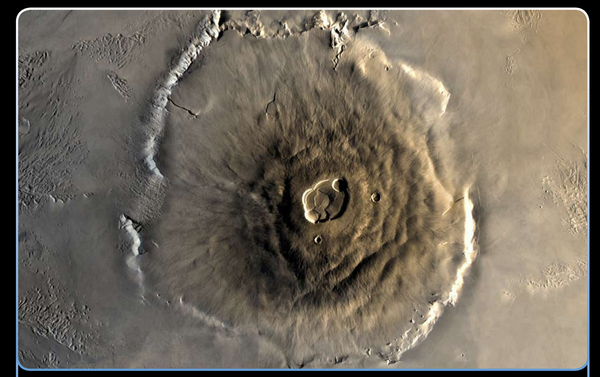


Because of its location near the equator, the peak of Mt. Chimborazo, in Ecuador, rises farther from the center of the Earth than that of any other mountain.

It might seem easy to figure out what mountain on the Earth is the tallest, but it can get confusing. What do we mean by "tall?" Do we measure the height of a mountain from sea level? From its base? From the center of the Earth? All of these are reasonable (and interesting!) ways to do it.

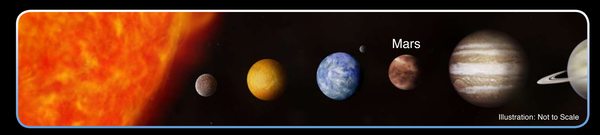
Mt. Everest rises 29,035 feet (8,850 meters) above sea level, higher than any other mountain. Mauna Kea (meaning "white mountain" in Hawaiian) peaks at 13,796 feet (4,205 meters) above sea level, but it starts far below, on the ocean floor. From its base, the full height is 33,500 feet (10,200 meters), making it the tallest mountain.

Mt. Chimborazo, in the Andes of Ecuador, is 20,703 feet (6310 meters) above sea level. But, because Ecuador is near the equator, the top of this mountain is actually farther from the center of Earth than any other point on the planet!



OLYMPUS MONS STANDS TALL

Mars is not to be outdone by Earth! Its tallest mountain is Olympus Mons. Towering at a staggering 78,000 feet (24,000 meters) it is the tallest mountain in the **solar system**!



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