Kids & Schools Tools

All about mountains

A **mountain** is a land formation that rises above the area around it. A hill is a small mountain, and often a hill does not have a peak or summit at the top of it, as most "real" mountains do. There are many mountains on our planet, covering about 24% of the earth's land, and they have played important roles in human history over the ages—as protection, as a barrier, as borders, as a source of water, etc. Mountains cover about 54% of Asia, 36% of North America, 25% of Europe, 22% of South America, 17% of Australia and 3% of Africa.

There have been many very high mountains in the earth's history, much higher than the mountains now. Many hills we see around us today were tall mountains millions of years ago. The highest land mountain on Earth is now Mount Everest in the Himalayan mountain range in Asia, which measures 8,848 meters. The mountain that rises farthest from its base is Mauna Kea on Hawaii, which has a total height of 10,200 meters, from the bottom of the ocean floor to its peak.

Very high mountains sometimes have ice or snow on them all year round. First of all, mountains are always colder than lower ground, since the sun heats earth from the ground up. High mountains also reach up into the colder layers of the earth's atmosphere. Tall mountains and mountains that are close to the North or South Poles can have glaciers and glacial lakes on them. Since high mountains reach up into different layers of the earth's atmosphere, the temperature, wind and level of rain or moisture change from the bottom to the top. This means that there are different ecological systems at different altitudes on the sides of the mountain. The animals (fauna) and plants (flora) that live at the base of a mountain, where it is usually warmer, wetter and more sheltered from the wind than higher up, are different from the animals and plants that live near the top of the mountain.

There are many different mountain shapes and categories. Most mountains started off pointed, and the ones that are now rounded have been worn down over millions of years. Many mountains with very pointed peaks were shaped by erosion caused by glaciers (for more on erosion, see above and the erosion New7Wonders "Tell me why" sheet), whether they are now tall or short. Other pointed mountains are volcanoes, caused by volcanic eruptions that built up lava. Mountain ranges, often with still-pointed peaks, were often caused by faulting and folding, when the earth's continental plates moved and forced each other up or down. Other mountains, such as buttes, plateaus, mesas, monadnocks, inselbergs and kopjes, stand alone as squarish or rounded mountains. These were shaped when softer rock eroded away to leave a knob of harder, often volcanic, rock still standing.

Try some of the projects suggested in the New7Wonders of Nature Project Ideas (you can find these at www.new7wonders.com/kids&schools) to learn more about mountains.

If you want to find out more about the exciting campaign to name the New7Wonders of Nature, visit the New7Wonders website at www.new7wonders.com.