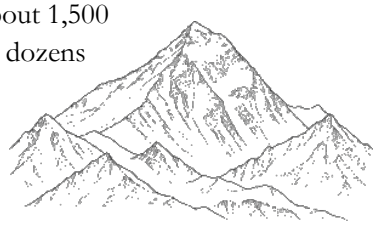
Name: _____

Date: _____

# The Himalayas

The Himalayas form a gigantic wall of rock and ice that separates the Indian subcontinent from the rest of Asia. The name means "home of snow" because its highest peaks are always capped with snow. The range stretches about 1,500 miles from east to west, with dozens of peaks rising nearly four miles above sea level, creating different worlds on either side.



## From Snow to Rivers

The vast glaciers of the Himalayas act as a giant water tower for South Asia. Melting snow feeds great rivers like the Ganges and Indus, providing vital fresh water while the rivers carry sediment that creates fertile soil. South of the mountains, river water combines with warm climates and heavy seasonal rains to support enormous populations. Today, about one-fifth of the world's people live in India and Bangladesh alone.

## Different Worlds

The Himalayas stand as a towering barrier between the Indian subcontinent and Tibet. Even today, no major highway connects India and Tibet across the range. The few mountain roads twist along steep cliffs and high passes that weather, landslides, and snow can close for months at a time.

North of the Himalayas, the land changes dramatically. Much of Tibet sits on a cold, dry plateau more than two miles above sea level. Trees are scarce across the landscape, but grasses provide food for yaks, sheep, and goats. Today, Tibet is part of China, though Tibetans have their own distinct language, culture, and religious traditions.

The Himalayas also stretch across Nepal and Bhutan, where ancient traditions meet a rapidly modernizing world. The mountains made travel difficult for centuries—Bhutan only introduced television in 1999. Today, historic Buddhist monasteries overlook towns connected by smartphones and the internet.

## Becoming Mountains

The Himalayas formed because the subcontinent is part of a tectonic plate that drifted northward from an ancient supercontinent. The plate was once joined with Africa, Australia, and Antarctica before colliding with Asia about 50 million years ago. This ongoing collision pushed the land upward, and scientists expect the Himalayas to continue rising for the next several million years.

## Mount Everest

The Himalayas include Mount Everest, the world's tallest mountain, rising 29,031 feet (8,848.86 meters) above sea level on the border between China and Nepal. No plant life grows near the summit due to powerful winds, extreme cold, and thin air.

## Thin Air

The air really is thinner high in the Himalayas. Air is made of tiny molecules, including the oxygen molecules our bodies need to survive. As elevation increases, those molecules spread farther apart. A hand fan waved near the summit of Mount Everest would create less of a breeze because there are fewer air molecules for the fan to push.

## Sherpas

The Sherpas are the best-known ethnic group living high in the Himalayas. Their ancestors lived at high elevations for thousands of years, allowing their bodies to adapt genetically to use oxygen more efficiently than people born at sea level. Famous for working as expert mountain guides, the word sherpa has entered the English language as a term for a trusted and experienced guide, though Sherpa is actually the name of a people, not a profession.

## Challenging Everest

Every year, adventurous climbers from around the world rely on Sherpa guidance to challenge Everest. Even with modern equipment and local expertise, the summit remains one of the most perilous places on Earth, where only the hardiest survive.

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## Fill in the Blanks

The Himalayas separates the Indian s__b__o__t__n__nt from the rest of A_____. Their g__a__ie__s feed great rivers such as the G__n__es and I__d__s, helping support large p__p__l__t__o__s south of the mountains. North of the Himalayas, T__b__t lies on a cold, dry p__a__e__u where there are few trees and people raise y__ks, sheep, and g__a__s. The mountains formed when the t__c__o__ic plate carrying India c__l__i__ed with Asia about 50 m__l__i__n years ago, and they are still r__s__ng today. The Himalayas include Mount E__e__e__t, the world's tallest mountain. High in the mountains, air m__l__c__l__s spread farther apart, so each ★b__e__th contains less o__y__en than at s__a level. The Sherpas and their a__c__s__o__s have lived at high e__e__a__i__ns for t__o__s__n__s of years, developed g__n__t__c adaptations that help their bodies use o__y__en efficiently. Their ★k__o__l__d__e of the m__u__t__i__s has made many Sherpas expert guides for c__i__b__rs attempting to reach the s__m__it of Everest.

## Answer in Complete Sentence

1. Explain why the text say "the Himalayas act as a giant water tower for South Asia."

_____

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★2. How is Tibet different from India and Bangladesh?

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3. Why do scientists believe the Himalayas will continue to rise?

_____

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★4. Explain why it is difficult to breathe near the top of Mount Everest.

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★ This is a higher order learning question. You must answer the question to the best of your ability, but any reasonable answer will be graded as correct.

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