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Mountains

written by Alice Lee Folkins



Mountains

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Dear Student,

I am a teacher who has studied how children learn to read well. What I have learned has been used to write SummerReads and programs like QuickReads® and Ready Readers.

The best way to be ready for the new school year is to read every day of the summer. You can choose to read a chapter or a book from SummerReads. But be sure to read it at least three times on the same day. Here's how to use SummerReads:

1. Start by reading it yourself. Mark the words that you don't know.
2. Next, ask someone to read with you. Get that person to help you with any words you don't know. You can even go to the computer to www.textproject.org and hear a recording of the books.
3. Last, you're going to read by yourself to answer the questions at the end of the book. You can go to the computer to find the answers.

Have a reading-filled summer!



Elfrieda (Freddy) Hiebert, Ph.D.

Inventor of the TExT model

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Introduction

Mountains

In summer, the sun heats up sidewalks and parking lots in the city. It's a great time to go to the mountains where it is cool. As you climb higher in altitude, you will find that the temperature will be lower. Unlike the winter when it is cold in the mountains, summer in the mountains can be warm but not hot like at lower altitudes. Mountains can also be beautiful places to visit in summer with places to hike, ride bikes, fish, and raft on rivers.

The high altitude of the mountains means that it's cooler. But you've got to be careful. It may not be hot but the higher altitude means that the air is thinner. That means that the sun's rays are stronger. You can get sunburned more easily at higher than lower altitudes. Put on sunscreen, if you're visiting the mountains. Or you can keep reading. You'll read about things that are cool without risk of sunburn!

Mountains

Higher and Higher



About one fifth of the Earth's land area is made up of mountains. Each of the seven continents has mountains but their heights differ. The highest mountain is on the continent of Asia. Mount Everest in southern Asia is almost 30,000 feet high.

Many different kinds of plants and animals can be found on the same mountain but at different heights. The lower

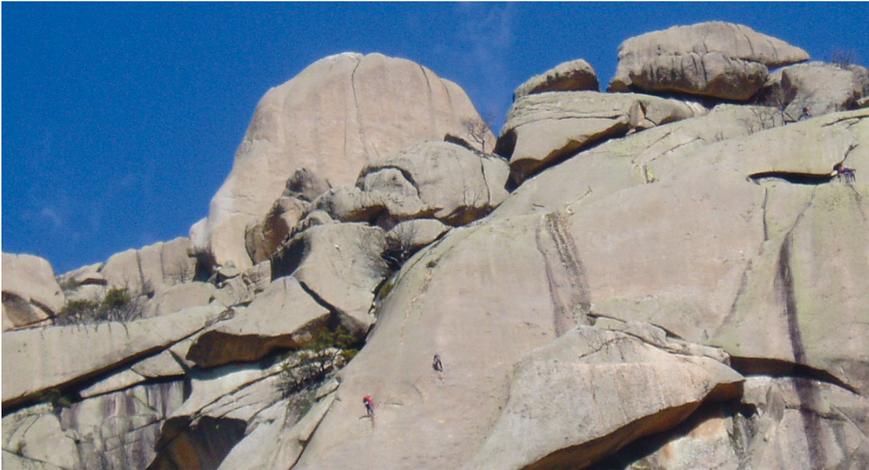
regions of mountains are often homes for many different kinds of plants and trees and of a variety of birds and animals.

The higher you climb on a mountain, the cooler it gets and the growing season is shorter. Because food is harder to find, there are fewer kinds and smaller numbers of animals. Larger animals, such as elk and mountain goats, have to be able to climb steep mountain slopes.

The top of a very high mountain is usually in the alpine region. The alpine region is above the treeline, which means that trees can't grow in this area. The soil is bare and rocky. Snow stays on the ground for much of the year. Plants that grow in the alpine region, like grasses and mosses, are small but strong. The animals that live high on mountains tend to be small, too. Small rodents and rabbits can get by without as much food as bigger animals that live lower on the mountain.

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Climbing Mountains



When you think of climbing mountains, you probably think of people using picks and ropes to get up steep rock cliffs. For many of the world's highest mountains, that is exactly what it takes. Climbers need the right equipment and training to climb these mountains. They need to plan their climbs so that they get used to the thinner air at high altitudes.

But there are some high mountains that can be climbed without picks and ropes. Climbing these mountains is not like

taking a walk around the mall or your block. Climbers need to be able to walk for many miles. They need supplies like water and food. Climbers also need to plan their climbs for the summer when storms are unlikely to happen.

It may surprise you that the highest mountain in the lower 48 states of the United States is a mountain that people can climb without special equipment. Mount Whitney is almost 15,000 feet above sea level. Climbers usually start the climb at about 8,500 feet.

Children as young as nine years old have climbed Mount Whitney. While they haven't needed special equipment, these children got plenty of exercise before making the climb. The climb up is long — 10 miles. Once you get to the top, you have to be ready to go down. That's another 10 miles! These children needed their parents to bring the right amount of food and water and to go at the right time of the summer. All climbers need permits to climb Mount Whitney, even babies in their parents' backpacks!

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Avalanche



Avalanches are one of the most dramatic events in the high mountains. An avalanche is a very fast flow of large amounts of snow and ice down a mountain slope. Avalanches can reach speeds of 80 miles per hour in just a few seconds. Trees, rocks, and buildings can be swept along with the snow as it rushes down the mountain.

On high mountains, snow piles up in layers. Each new snowfall adds another layer of snow to layers from earlier snowfalls. An avalanche starts when a weaker layer of snow can no longer hold the weight of the newer layers of snow

Photo: Avalanche in progress, Upper Styria, Austria, February 2009.
Austrian Armed Forces Photograph/Andreas MACHER. Cleared for non-commercial release.

above it. When the weaker layer gives way, the top layers of snow slide down the slope.

Every avalanche has a trigger that starts the flow of snow. Natural events such as a movement in the Earth's crust can trigger an avalanche. People can also trigger an avalanche just by skiing or walking in a dangerous area.

Avalanches hardly ever happen in summer. Except at the highest peaks, snow has melted and run down the mountainside by the summer. That's why most people climb mountains in summer.

You don't need to worry about avalanches if you're visiting the mountains this summer. But even in summer, weather can change quickly as altitude increases. Climbers always need to listen to weather reports and stay on trails. They also need to be certain to have plenty of water and wear sunscreen. Drinking plenty of water and wearing sunscreen is always good to do in the summer – even if you're far from the mountains!

Mountains

Rate your thinking and reading

- ✓ Put a check each time you read one of the chapters of the book.
- ★ Give yourself a star for Sharing if you told someone about something you learned from reading the chapter.
- + Give yourself a + if you can tell that your reading is getting smoother.

	1st Read	2nd Read	3rd Read	Sharing	Smoother
Introduction					
Higher and Higher					
Climbing Mountains					
Avalanche					

Comprehension questions

Higher and Higher

1. True or false? Plants and trees tend to be shorter or smaller as you move up a mountain.
 - true false
2. Animals living on mountains tend to be smaller or shorter because _____.
 - they hide in small places
 - they only like to eat a little bit.
 - there is not a lot of food to eat

Climbing Mountains

3. True or false? Climbing mountains is like walking around the mall.
 - true false
4. Which of the following would a climber *not* need for an overnight climb up a mountain?
 - Water
 - Food
 - TV
 - Sleeping bag

Avalanche

5. True or false? An avalanche moves so slowly that most people can outrun one.
 - true false
6. What are some things that can trigger an avalanche?
 - Taking a picture of the mountain
 - A weak layer of snow
 - An earthquake
 - People skiing off trail