**Before Reading**

**Over the Top: The True Adventures of a Volcano Chaser**

Magazine Article by Renee Skelton

**Why do people seek DANGER?**

Most people avoid danger. They buckle their seat belts when they fly on a plane. They take care not to anger mean dogs, not to swim where there are sharks, not to walk on thin ice. But then there are other people—the ones who dream of skydiving and who soar through half-pipes on their skateboards. The man featured in the article you’re about to read belongs to this group. He’s willing to risk his life to photograph mysteries of the earth.

**WEB IT** What dangerous activities are also popular pastimes? What is it about these activities that makes people willing to risk their safety? Use a web to explore the reasons why these activities can be viewed as both fun and dangerous.
Text Analysis: Graphic Aids

Magazine articles often contain graphic aids, which are visual representations of information. Writers use graphic aids to highlight or summarize important concepts and to explain things in fewer words. Common graphic aids include photographs, maps, diagrams, graphs, and timelines.

As you read “Over the Top,” use a chart like the one shown to take notes on the article’s graphic aids.

<table>
<thead>
<tr>
<th>Type of Graphic Aid</th>
<th>What It Explains</th>
</tr>
</thead>
</table>

Reading Strategy: Adjust Reading Rate to Purpose

Effective readers change the speed at which they read to suit their purpose. Try this as you read the following article.

<table>
<thead>
<tr>
<th>When your purpose is to</th>
<th>Adjust your rate like this</th>
</tr>
</thead>
<tbody>
<tr>
<td>Get an overview of the article</td>
<td>Skim before you begin. This involves quickly reading the title, subheadings, and any graphic aids.</td>
</tr>
<tr>
<td>Find key words or particular information</td>
<td>Scan the text. This involves moving your eyes quickly over the text, looking for the words or information you need.</td>
</tr>
<tr>
<td>Gain a full understanding of something, or clarify information</td>
<td>Read the material at a slower pace, and reread if necessary.</td>
</tr>
</tbody>
</table>

To use the best strategy for your purpose, stay mindful of why you’re reading and whether you need to adjust your rate.

Vocabulary in Context

The following vocabulary words help Renee Skelton tell about a man with a dangerous job. To see how many you know, match each word with its numbered synonym.

**WORD LIST**
- cavernous
- pinnacle
- scale
- searing
- labyrinth
- straddle

1. climb 3. top 5. maze
2. vast 4. span 6. hot

Complete the activities in your Reader/Writer Notebook.
What can you expect to learn from this article?
Take a minute to skim the selection and make some predictions about what you'll be reading.
Dangling from a climber’s rope, Carsten Peter slowly lowers himself into the fiery throat of Ambrym volcano. One slip, or a direct blast of hot, poisonous gas from the boiling lava lake below, and this descent could be his last. For most people this would have been terror time.
But for Peter it was all in a day’s work. The daredevil photographer roams the world, scaling mountains and dropping into erupting volcanoes to photograph these fiery mountains at their most frightening—and most beautiful. Does he get scared? “Sure,” Peter says. “You wouldn’t be normal if you didn’t get scared.” But volcanoes are a window into Earth’s scorching center. And for Peter, peering through that window with his camera is worth the risk.

### Into a Boiling Pit

Ambrym is a tiny South Pacific island that consists of a flat-topped volcano. The volcano erupted violently about 2,000 years ago. The explosion left the

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1. **Mount Vesuvius** (vī-sō̅vēs’ē-ə): a volcano located in southern Italy.
3. **Mount St. Helens**: volcano located in southern Washington state.
seven-and-one-half-mile-wide caldera, or wide crater, that now forms its top. Peter hoped to use one of the vent openings in Ambrym’s caldera as a porthole into the volcano’s fiery center.

When Peter arrived at Ambrym, the volcano was rumbling, its craters belching steam, gas, and ash. He and his group set out right away, hacking through dense jungle and climbing 4,000 feet up the side of the volcano. They emerged from the jungle onto the caldera’s rim—a moonscape of boulders and gray-black ash.

After several days of exploring the caldera’s surface, Peter decided to descend into Marum, one of Ambrym’s pitlike craters. Wearing protective gear, he attached one end of a climbing rope to an anchor hammered into the ground and the other end to his descent device. Peter then disappeared over the edge of Marum’s clifflike rim, camera equipment mounted on his helmet and tethered to his back and waist. Peter descended 1,000 feet down the face of the crater’s steep walls, as heat rising from the searing lava lake blasted him. Pockets of gas and water trapped in the lava expanded and exploded, sending out booms that echoed and shook the crater walls. “The Earth was trembling all around me,” Peter says. “And I felt the vibrations all through my body.”

Peter had to be careful. A sharp rock could have cut his rope, dropping him into the cavernous pit. Tremors could have pried boulders from the cliff above, sending them crashing down on an arm or leg. Peter paused partway down, clutching the rope as volcanic ash stung his eyes and intense heat and sound from the blasting lava rose around him. “If the volcano had exploded then, it would have been the last eruption I ever saw,” he says. He drew as close as possible to the spitting, belching lava lake at the bottom. Glowing lava bombs were bursting like fireworks from its surface as Peter snapped photos all night.

Language Coach

Personification: The word belching in line 30 is an example of personification, giving human qualities to something that is not human. What human quality does the author use to describe what is happening in the volcano?

searing (sir’ing) adj. hot enough to burn, char, or scorch

cavernous (käv’ar-nas) adj. as deep or vast as a cavern, or a large cave

4. tremors (trēm’arz); shaking or vibrating of the earth.
The next morning, exhausted, Peter attached his rope and pulled himself up to safety on Marum's rim. It was time to leave Ambrym for new adventures.

**Fire and Ice**

Half a world away in Iceland, the challenge was more ice than fire. Because of Iceland's location, many volcanoes are hidden below its thick glacial ice. Iceland straddles the mid-Atlantic ridge, where two of the plates that form Earth's crust are pulling apart. The results are frequent tremors and volcanic eruptions. When volcanoes under Iceland's glaciers erupt, they burn through ice at the glacier's base. Escaping heat carves out spectacular formations under the ice.

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**Signs That “It’s Gonna Blow!”**

1. In and around a volcano, the frequency and intensity of earthquakes increase.
2. The ground at the eruption site deforms or bulges.
3. The amount of gas released by the volcano increases.

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5. **Iceland**: an island nation located in the North Atlantic Ocean near the Arctic Circle.
Peter’s goal was to photograph these underground wonders. After a jolting jeep ride over part of the glacier, Peter continued on foot—leaping crevasses, sloshing through icy rivers of meltwater, and scrambling over jagged ice pinnacles. “The heat created chambers inside the ice we were passing over,” says Peter. “We had to be very careful.” Peter found that out the hard way. Crossing an area of ice that looked solid, Peter stepped on a thin section and crashed through into a hidden river of icy water. He struggled to keep his head and cameras above water. The cameras didn’t make it. Luckily Peter did, thanks to two friends who pulled him out of the frigid water.

Exploring the surface ice, Peter discovered a collapsed ice chamber that led to a labyrinth of ice caves and tunnels inside the glacier. “It was beautiful, but we were in potential danger because the chamber could have collapsed at any time,” Peter says. “Also, we were in a region where earthquakes and floods are common occurrences.” But using carbide lights to illuminate the dark tunnels, Peter took incredible photos of the formations in the glacier’s frozen heart.

As you read this, Peter is probably perched on the rim of another volcano, camera in hand. He’s withstanding heat from 2,200 degrees Fahrenheit lava flows and dodging deadly clouds of gas to get close to nature at its most extreme. Earth’s geology continues to fascinate him. “Volcanoes are very powerful,” he says. “When you feel these eruptions, it’s the greatest experience you can have.”

6. carbide (kär’bid’): a very hard material made partly of carbon.

pinnacle (pîn’ə-kal) n. a peak; a pointed top

labyrinth (lāb’ə-rinth’) n. a maze; an intricate structure of interconnected passages

**ADJUST READING RATE**

What three things posed a danger to Peter as he explored the ice chamber? **Scan lines 78–82 to find the answer.**
Comprehension

1. **Recall** What could have killed or injured Carsten Peter as he photographed inside the Ambrym volcano?

2. **Recall** What did Peter go to Iceland to photograph?

3. **Represent** Using the information provided by the captions on page 904, draw a simple timeline that shows the order in which three famous volcanoes erupted.

Text Analysis

4. **Analyze Reading Rate** What part of the article did you read most quickly? When did you have to change your reading rate? Explain which strategy you found most useful as you read.

5. **Draw Conclusions** Why do you think Carsten Peter feels it is important to photograph volcanoes in spite of the danger involved?

6. **Compare and Contrast** In what ways are the careers of Steven Kutcher ("The Spider Man Behind Spider-Man," page 892) and Carsten Peter alike? In what ways are they different? Complete a Y-chart like the one shown to compare and contrast the two men and their careers. Record the differences in the top part of the Y, and the similarities in the bottom.

7. **Evaluate Graphic Aids** Look back at the chart you made as you read. What information do you get from the graphic aids? Would this information have been more or less clear if it had been included with the main text but without any visuals? Explain.

Extension and Challenge

8. **Readers’ Circle** Carsten Peter obviously believes that the risks he takes are worth the results. Imagine that he is a member of your family, such as your brother, uncle, or father. Would you support his choices, or would you urge him to find a safer career? Discuss your ideas.

9. **SCIENCE CONNECTION** How are volcanoes formed? What causes them to erupt? Research these questions about volcanoes, and ask one additional question of your own. Present your findings to the class in the form of a “slide show,” either on paper or the computer.

**Why do people seek DANGER?**

Now that you have read the selection, what would you add to the web you created about dangerous activities?
Vocabulary in Context

**VOCABULARY PRACTICE**

For each item, choose the word that differs most in meaning from the other words. Refer to a dictionary if you need help.

1. (a) searing, (b) scorching, (c) frigid, (d) sweltering
2. (a) descend, (b) scale, (c) climb, (d) ascend
3. (a) slant, (b) tilt, (c) straddle, (d) lean
4. (a) maze, (b) labyrinth, (c) network, (d) beeline
5. (a) gaping, (b) shallow, (c) deep, (d) cavernous
6. (a) pinnacle, (b) bottom, (c) base, (d) foot

**ACADEMIC VOCABULARY IN WRITING**

- challenge  •  communicate  •  design  •  job  •  method

Write a paragraph about the **challenges** of a daring sport or exciting hobby that interests you. Use at least one of the Academic Vocabulary words in your response.

**VOCABULARY STRATEGY: WORD ORIGINS**

Many common words in the English language have interesting histories. For example, the vocabulary word *scale* comes from the Latin word *scalae*, meaning “ladder.” It makes sense, then, that to scale something means to climb it.

You can find a word’s **etymology**, or the history of the word, in most dictionaries. Understanding etymologies can help you connect the word’s meaning to something you already know. Here is an example of an etymology:

**expand** (ik-spänd’) _v._ to become greater in size, quantity, volume, or scope

[ Middle English _expanden_, to spread out, from Latin _expandere: ex-_ + _pandere_, to spread]

**PRACTICE** Look up the etymology of each word in the dictionary. Write the word’s origin, and tell how knowing the word’s history can help you remember its meaning.

1. intense
2. grief
3. sparse
4. glacier
5. danger