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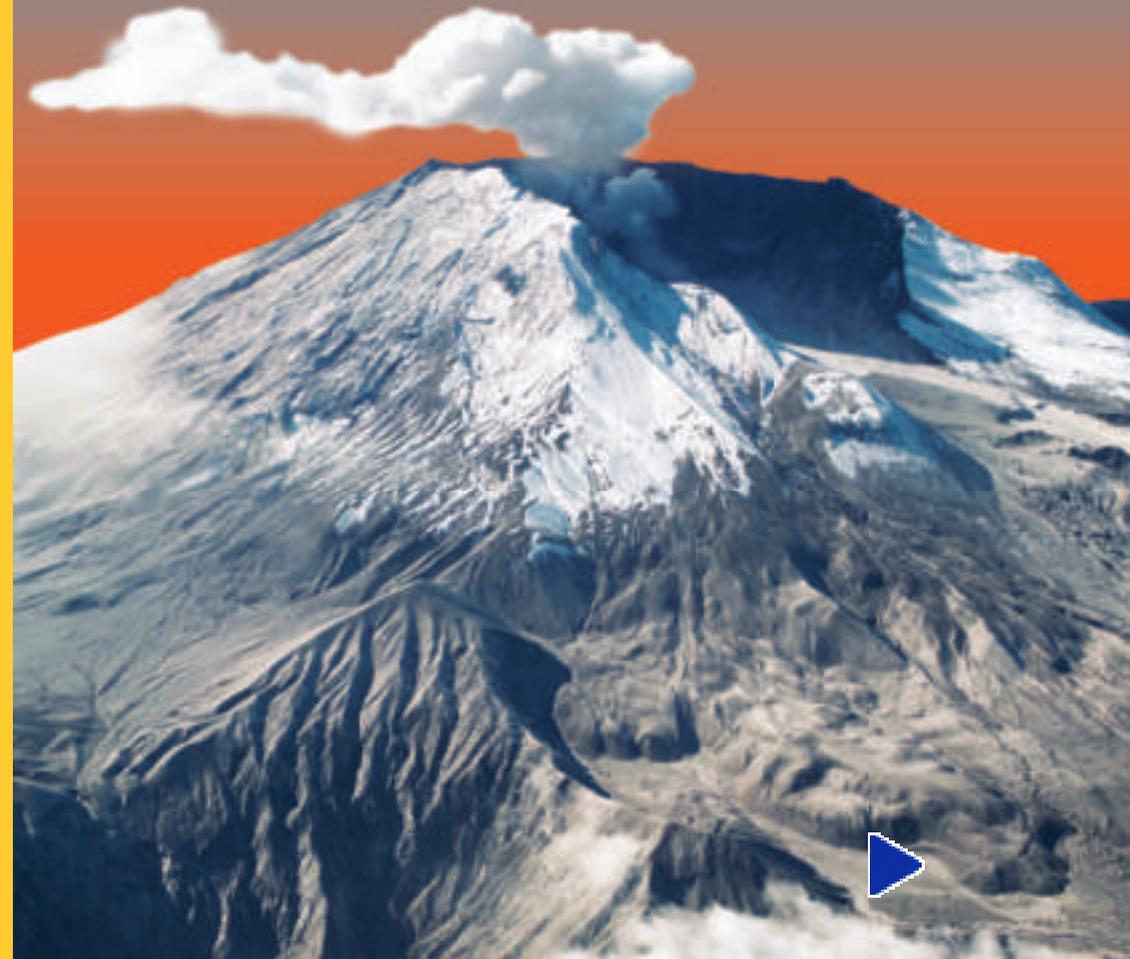
Science

Science

Earth Science

# Mount St. Helens

by Isabel Sendao



Genre	Comprehension Skills and Strategy	Text Features
Expository nonfiction	<ul style="list-style-type: none"><li>• Compare and Contrast</li><li>• Generalize</li><li>• Monitor and Fix Up</li></ul>	<ul style="list-style-type: none"><li>• Captions</li><li>• Diagrams</li><li>• Map</li><li>• Glossary</li></ul>

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by Isabel Sendao



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Mount St. Helens is a **volcano**. It is located in Washington State. Mount St. Helens is part of the Cascade mountain range. The Cascades go through northern California, Oregon, and Washington State.

The Cascades include Mount Rainier, Mount Shasta, and Mount Hood. But Mount St. Helens is as famous as those others. It is famous for what happened on May 18, 1980.

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The Cascades extend for hundreds of miles.





 Mount St. Helens' Spirit Lake (above); the mountain's crater giving off smoke and ash (right).

 Before then Mount St. Helens had been a popular place for outdoor activities. Its lake, Spirit Lake, always had lots of visitors. Not many of those visitors realized that the mountain sitting just above them was an active volcano.

 On May 18, 1980, Mount St. Helens erupted. The mountain's last eruption had been in 1857. At that time what we now call Washington State was not even a state! The land that is now Washington State was admitted into the United States in 1889.





Mount St. Helens had been giving off warning signs throughout early 1980. Those signs made scientists believe an eruption was likely.

Many small **earthquakes** shook the volcano. Lava inside the volcano built up pressure. The **force** from that pressure created a bulge in the volcano. The pressure also caused the volcano to **tremble**.



Scientists monitored the mountain carefully. They wanted to make sure that everyone around Mount St. Helens would be safe in case of an eruption. The scientists studied the small earthquakes created by the mountain. They also monitored the steam and gas that rose from the mountain.



Can you see the rivers of lava coming down the side of this volcano?



Scientists use devices like this theodolite to detect changes in a volcano's shape.





The scientists spent a lot of time watching the bulge. It grew every day. Its growth made the scientists nervous. They knew that only a huge amount of pressure could cause such a bulge. The pressure and the bulge it made scared the scientists more than any other warning sign.



Finally, after weeks of giving off warning signs, Mount St. Helens erupted.

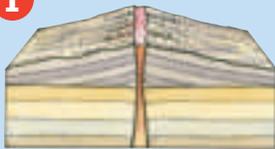
The bulge at the top of the volcano exploded. It went sliding down into Spirit Lake. The bulge's explosion reduced the mountain's height by more than one thousand feet.

Lava flows raced down the mountain's slopes. The mountain smoked like a **chimney**. Trees and plants were **buried beneath** ash and rock. After nine hours, the eruption finally ended.



## Six Stages of a Volcano

1



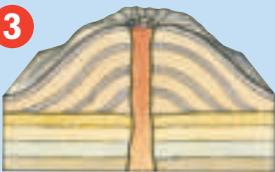
Lava finds an opening in Earth's surface.

2



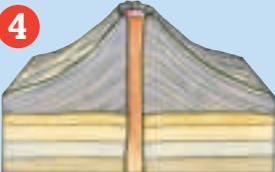
The opening widens as lava flows up through it.

3



Pressure causes the mountain to build.

4



The mountain's slopes get steeper.

5



Side vents form inside the volcano.

6



The volcano may erupt, blasting out a huge crater.

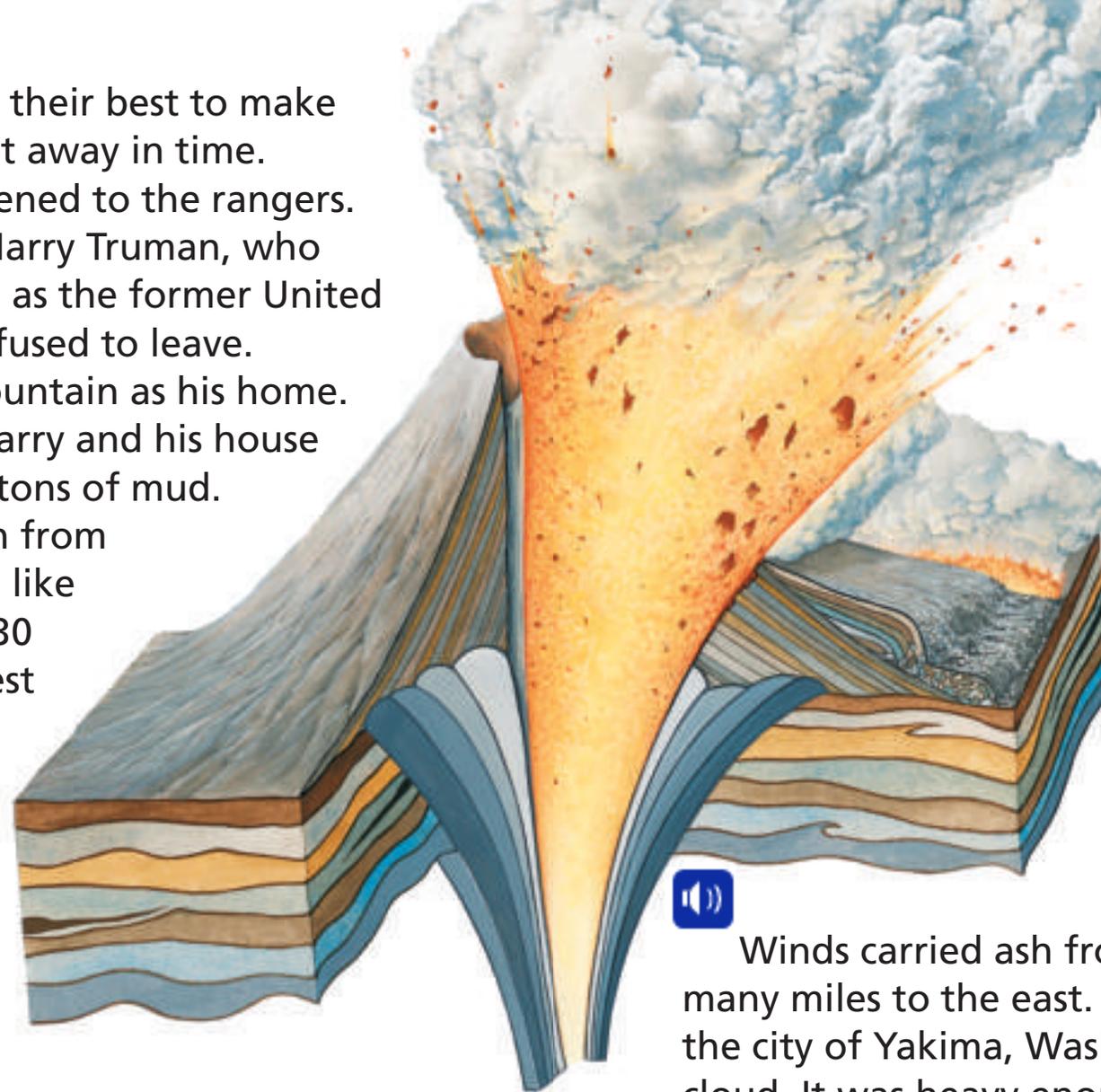




Park rangers did their best to make sure that people got away in time.

Most people listened to the rangers. But a man named Harry Truman, who had the same name as the former United States president, refused to leave. Truman saw the mountain as his home. When it erupted, Harry and his house were buried under tons of mud.

The rock and ash from the eruption rained like **fireworks**. Nearly 230 square miles of forest were destroyed. The eruption also made a crater, or shallow hole.



A diagram showing an erupting volcano, similar to Mount St. Helens



Winds carried ash from the eruption many miles to the east. The ash covered the city of Yakima, Washington in a thick cloud. It was heavy enough to collapse roofs. People had to wear masks to help them breathe. It took many weeks to clean up all the ash that fell on the city.





The volcano continued to tremble and erupt for weeks after the first eruption. Small earthquakes shook the mountain frequently. But the worst part of the eruption was over.

More than twenty-five years have passed since the eruption of 1980. The forest on and below Mount St. Helens is slowly growing back.

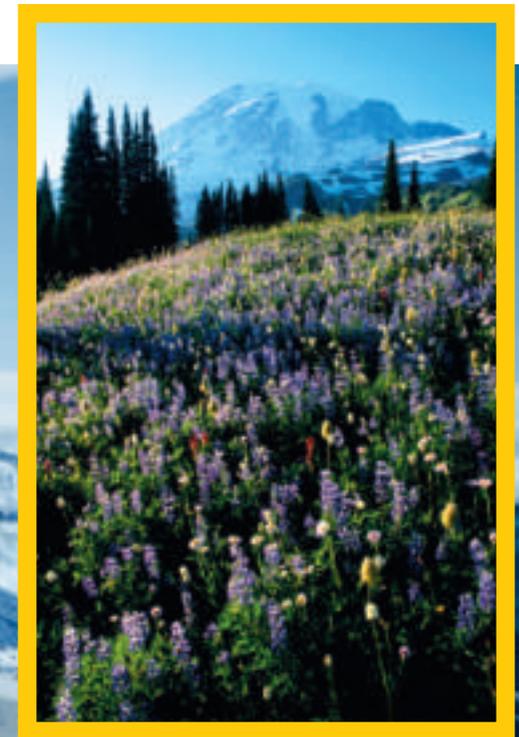


Volcanic rock (left), Mount St. Helens (below), and a mountain meadow near Mount St. Helens (right)



Some of the plants and trees are growing more slowly than others. Where there were lava flows, the plants and trees have barely begun to grow back. But where there were only mudslides, the trees and plants are growing faster. Scientists estimate it will take more than two hundred years for the plant life of Mount St. Helens to completely grow back.

Animals are also coming back. Since there are more plants and trees now, there is more for the animals to eat.

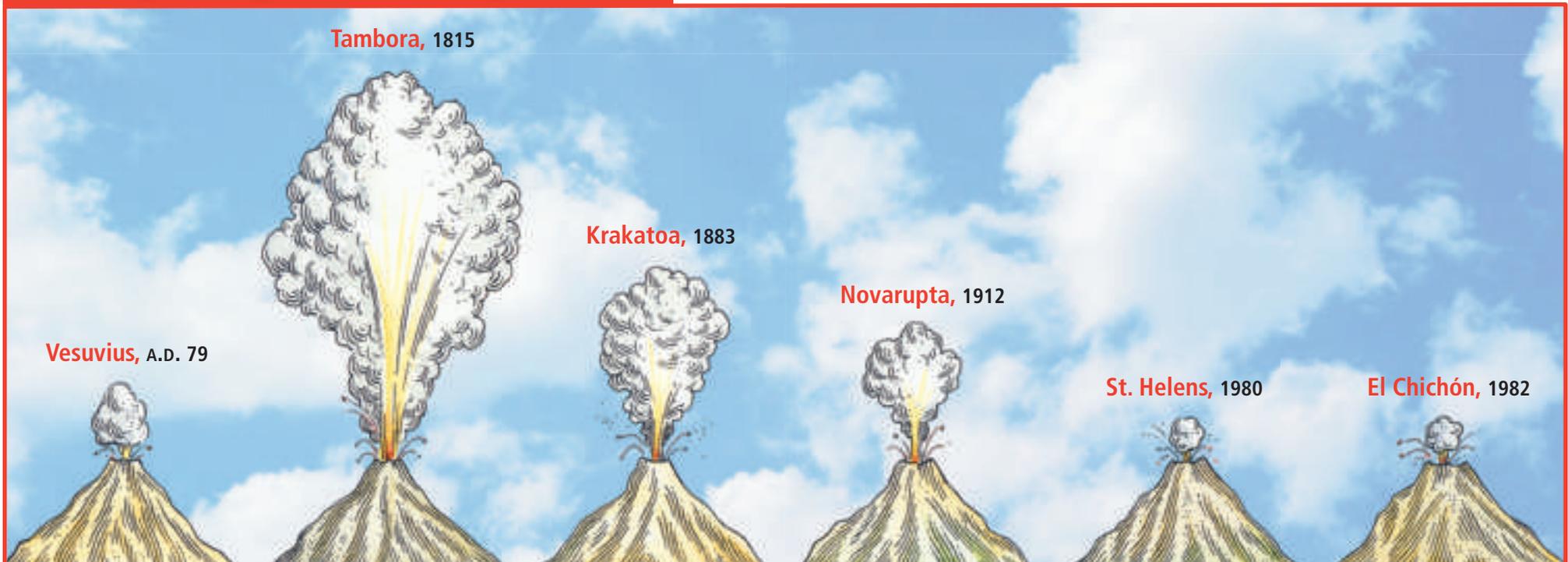


 The Mount St. Helens eruption of 1980 was one of the biggest in United States history. It taught scientists many things about volcanoes. They learned about how a volcano acts before it erupts. They also gained a lot of information to help them predict when other volcanoes might erupt. Scientists have used this information to study how volcanoes affect the land around them.

 There is now a monument on Mount St. Helens. It reminds us of the eruption of 1980. Observation stations have been placed on and around the mountain. They let people see how Mount St. Helens has changed since the eruption.

Mount St. Helens has erupted a few times since 1980. It will continue to erupt in the future. Still, with plenty of warning, no one should be hurt. So people will keep watching for signs of trouble!

## Comparing Other Eruptions





# Glossary

**beneath** *adv.* in a lower place; below; underneath; under.

**buried** *v.* to be covered up by something.

**chimney** *n.* an upright structure of brick or stone that carries away smoke.

**earthquakes** *n.* shaking or shifting motions of Earth's surface.

**fireworks** *n.* firecrackers, rockets, etc., that make loud noises or beautiful, fiery displays.

**force** *n.* active power or strength.

**tremble** *v.* to move in short, jerky movements; to shake.

**volcano** *n.* opening in Earth's crust through which steam, ashes, and lava are forced out in periods of activity.



# Reader Response

1. Some parts of Mount St. Helens got hit with landslides. Other parts got hit with lava flows. Use a graphic organizer like the one below to compare and contrast how life has returned to these two areas.

Hit with landslides	Hit with lava flows

2. Reread the section on page 9 that describes how Mount St. Helens' bulge exploded. Where in the book did you first read about a bulge?
3. The word *tremble* is used on page 6. Use the word *tremble* in a sentence that talks about a living thing.
4. What were you able to learn about the Cascades from the map on page 3?

