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All About Volcanoes

by Bill Kirk

All About Series

All About Volcanoes

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Glossary

active	erupting or bursting often
ash	small bits of rock and lava
dormant	asleep, not active
erupt	to burst or be thrown out
lava	hot, melted rock that comes from deep inside the Earth
volcano	an opening in the Earth through which lava, ash, and gases come out

All About Volcanoes

by Bill Kirk



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Chapter 1

Mount Saint Helens

In 1980, rumbles shook the ground around Mount Saint Helens, a mountain in the state of Washington. Scientists watched the mountaintop grow larger and larger. They saw cracks forming, and they knew something big was about to happen. All of a sudden there was a big BOOM! The mountaintop exploded with a roar.



The huge blast destroyed millions of trees. It flattened them like a bunch of sticks. Heat from the blast melted the snow on top of the mountain. The melted snow mixed with dust. It made a thick mud that raced down the mountainside. The mud buried houses, cars, roads, and bridges.



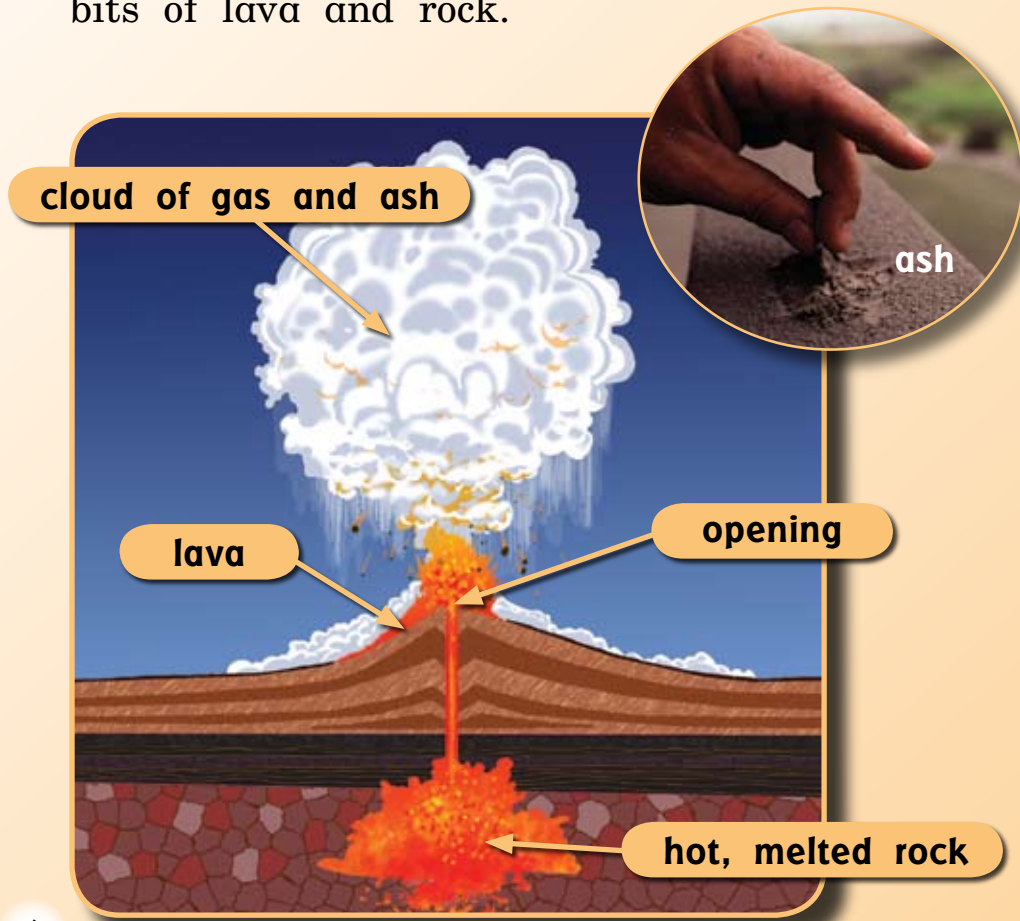
Early Warning

Months before the blast, scientists saw clues that Mount Saint Helens was about to burst. The police warned people who lived near the mountain to leave their homes. They also warned workers, reporters, and visitors to leave the area. Hundreds of lives were saved because people left before the huge blast.

Chapter 2

How a Volcano Forms

Mount Saint Helens is a volcano. A volcano is an opening in the Earth through which lava, ash, and gases come out. Lava is hot, melted rock that comes from deep inside the Earth. Ash is small bits of lava and rock.



Gas gets trapped in melted rock inside the Earth. The gas escapes when a volcano explodes. Then lava and rocks shoot out. This is a little like shaking a bottle of soda and then opening it. The gas in the soda causes the liquid to bubble up over the top of the bottle.



Some volcanoes are active. They burst, or erupt, often. Some volcanoes are dormant. This means they have not erupted for a very long time. Dormant volcanoes seem to be sleeping. Before 1980, Mount Saint Helens was dormant for more than 100 years.



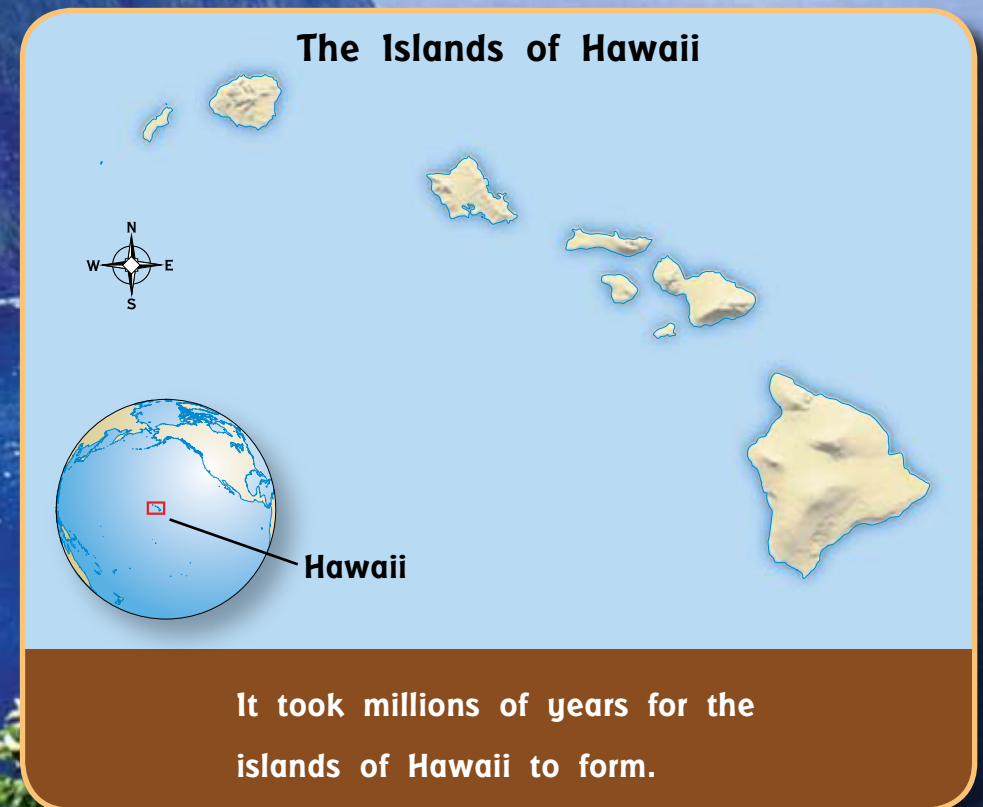
Not all volcanoes look like Mount Saint Helens when they erupt. When this big volcano erupts, red-hot lava flows from openings in the mountain.

Some kinds of lava move slowly, and some kinds move very quickly. When lava cools, it becomes hard rock. The rock becomes part of the mountain.

Chapter 3

Volcanoes Under the Sea

Some volcanoes erupt on land, and some volcanoes erupt under the sea. The islands of Hawaii are volcanoes in the sea. The volcanoes erupted many years ago and sent out streams of hot lava. The lava cooled into rock under the water. Each time the volcanoes erupted, the rocks got higher and higher. Finally, they rose over the top of the sea. These rocks formed the islands of Hawaii.



Chapter 4

Volcanoes and People

Volcanoes are dangerous when they erupt. Hot lava, gas, and ash burst out of the Earth. Yet, many people choose to live near volcanoes. The lava and the ash make the soil rich and good for farming. Rice, pineapples, and other plants grow well in volcanic soil.



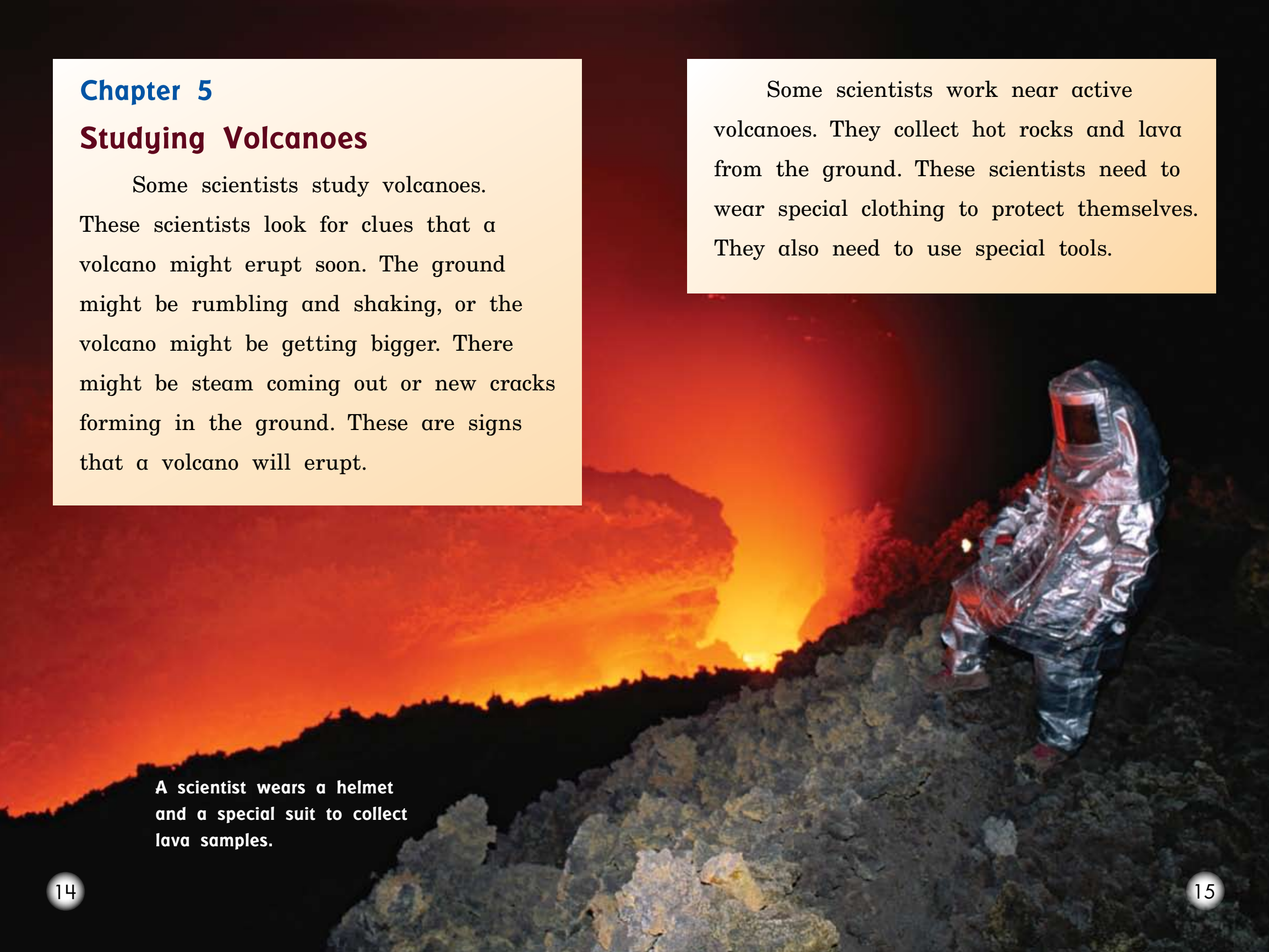
People in Iceland use the heat from volcanoes to make electricity. Pipes pump water through the hot rocks underground near a volcano. As the water heats up, it turns to steam. The steam is used to make electricity.

Chapter 5

Studying Volcanoes

Some scientists study volcanoes. These scientists look for clues that a volcano might erupt soon. The ground might be rumbling and shaking, or the volcano might be getting bigger. There might be steam coming out or new cracks forming in the ground. These are signs that a volcano will erupt.

Some scientists work near active volcanoes. They collect hot rocks and lava from the ground. These scientists need to wear special clothing to protect themselves. They also need to use special tools.

A photograph of a scientist wearing a silver, heat-reflective protective suit and a helmet, standing on a dark, rocky volcanic slope. In the background, a bright orange and red lava flow is visible, with a large plume of white steam or ash rising into the air. The scene is illuminated by the intense light of the lava.

A scientist wears a helmet and a special suit to collect lava samples.

Right now some volcanoes are inactive. They seem to be sleeping. Will these dormant volcanoes wake up and erupt again? No one knows for sure! Only time will tell.

