



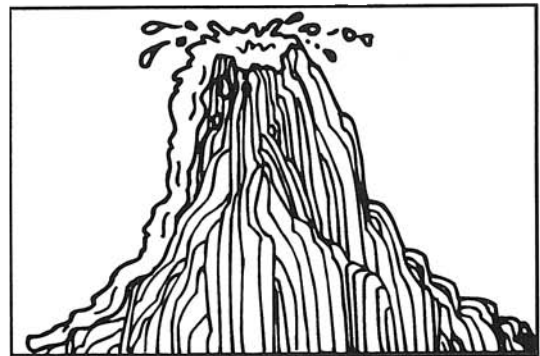
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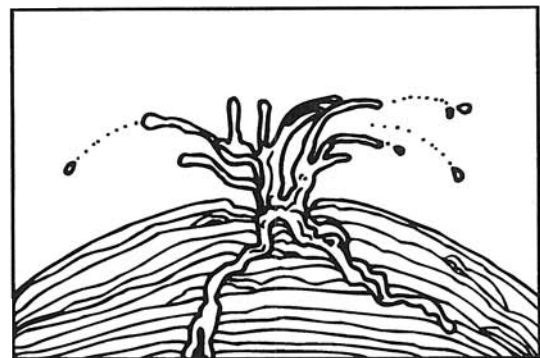
KINDS OF VOLCANOES

1. The kind of volcano that most people think about when they think of volcanoes is called a **STRATO VOLCANO**. It is the kind of volcano that is seen most often in books. Strato (or composite) volcanoes are tall and steep (up to 8,000 feet high); they kind of look like *giant* upside-down icecream cones. Strato volcanoes are known for pyroclastic explosions, or violent and sudden explosions of hot rocks, gases and lava. Some of the most famous volcanoes in the world are strato volcanoes: Mount Fuji in Japan, Mount Shasta in California, Mount Hood in Oregon, and Mount St. Helens and Mount Ranier in Washington.



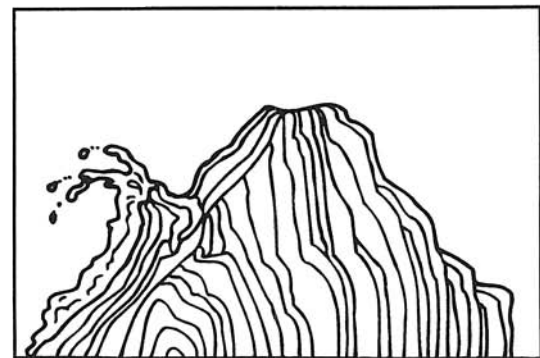
1. STRATO VOLCANO

2. A **SHIELD VOLCANO** is like an upside-down bowl. This is the kind of volcano found in Hawaii and Iceland. These are continuous flow volcanoes and are safe to watch from a distance.



2. SHIELD VOLCANO

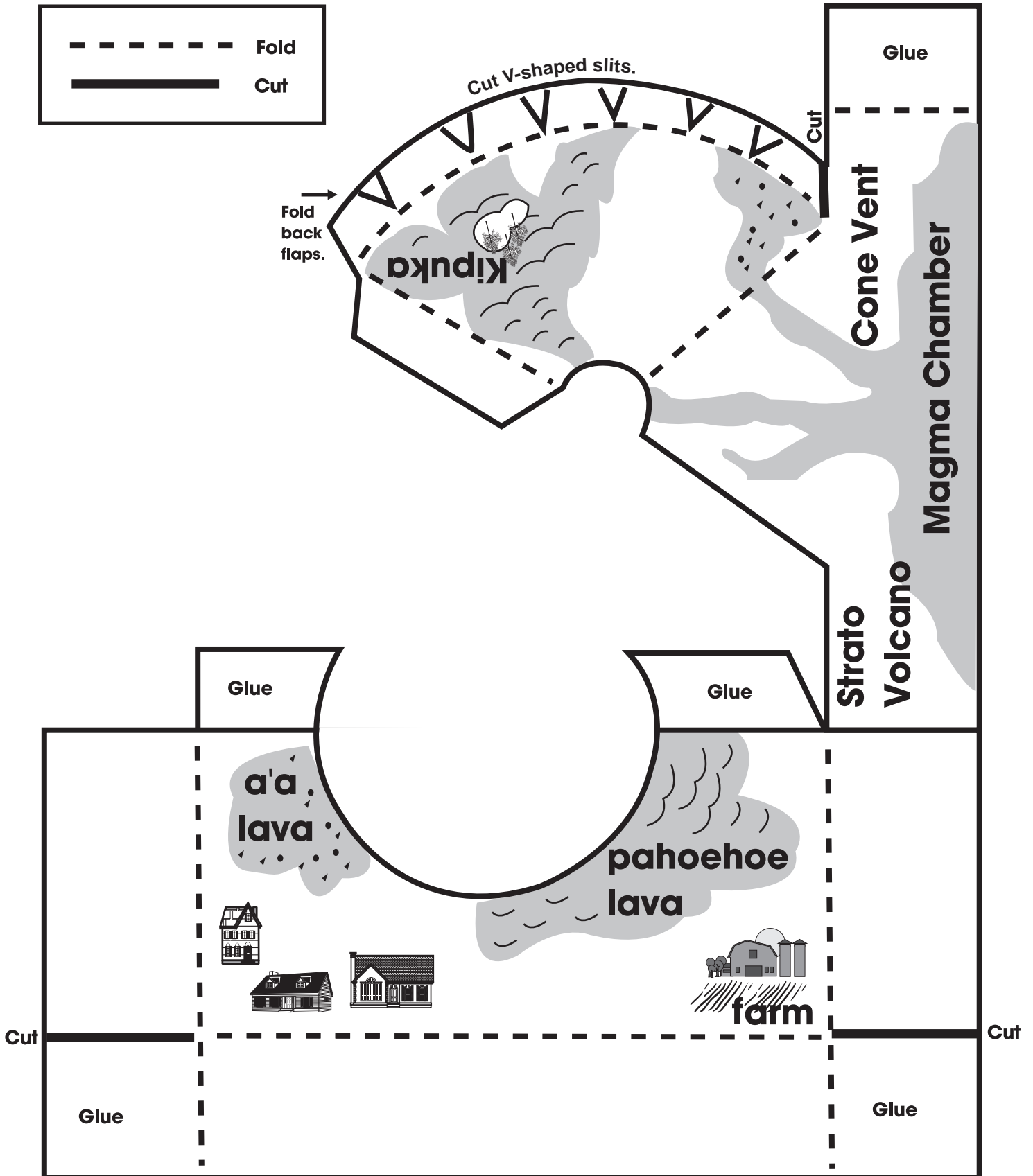
3. A **CONE VOLCANO** is like a small upside-down ice-cream cone. Cone volcanoes rarely rise more than 1,000 feet above their surroundings.



3. CONE VOLCANO

MAKE A PAPER VOLCANO

To make a 3-D paper model of a strato volcano, make a copy of this page and follow the instructions for cutting and gluing.



WHAT
HAPPENS WHEN

VOLCANOES ERUPT?

The best way to describe what happens when a volcano erupts is to think about what happens when you shake a bottle of soda pop. The shaking builds pressure, and when you open the bottle, the soda squirts out. This is what happens when a volcano erupts. Magma builds up and mixes with gas formed from melted rock. This mixture is light and rises to the top. When it reaches the top or a weak area on the side of the volcano, the pressure of the gases in the magma causes the volcano to erupt.

There are usually signs that a volcano is going to erupt soon. Beneath the surface of a volcano, the hot magma is stored in the magma chamber. When the magma chamber is full, the sides of the volcano bulge. Most of the time, there are also small earthquakes right before a volcano erupts. There are also leaking gases, like sulfur, that smell really bad.

An eruption can last from a few seconds to years, even centuries. Stromboli in Italy has erupted every few minutes over the last 2,000 years. Most volcanoes erupt for three to four weeks and then rest. An eruption will stop when there is no more molten rock, when there are not enough gases in the magma or when the **CHIMNEY** is plugged by cooled lava.

In the picture to the right, you can see sulfur gases being emitted.



Volcanoes erupt in different ways.

- Some are quiet. These are **CONTINUOUS FLOWS**. These are usually safe eruptions that people can watch. Kilauea volcano in Hawaii is a continuous flow volcano. It has erupted continuously for the last 20 years.
- Other eruptions are very forceful and send tons of steam, ash and rock into the air. **PYROCLASTIC ERUPTIONS** are the most powerful eruptions. Glowing clouds of gas, steam and rock blast out of the volcano. The thick clouds drop back down onto the volcano and race down its sides. An eruption like this on Mount Pele in the Caribbean killed 30,000 people. Mount St. Helens in the state of Washington was also a pyroclastic eruption that killed many people and caused a great deal of damage.

A volcano erupts when **MAGMA**, molten rock inside the volcano, comes bursting out. After magma comes out of the volcano, it is called **LAVA**. Lava can pour from the top of a volcano and down its sides. Dust, gas, steam and hot rocks can also shoot into the sky. Sometimes an eruption is so loud it sounds like an explosion!