

Lava Tubes

Chapter 10

Lava tubes form during volcanic eruptions of basalt that produce pahoehoe lava flows down the flanks of a volcano. The lava as it makes its way down the mountain usually travels about a half mile per hour. The movement is like water flowing down a hillside for the first time. Lava winds around obstacles following low points in the land.

The edges of the lava flow cools and crusts over as it encounters older rocks forming a lava tube. Sealed inside the smooth sides of a lava tube the molten rock can travel miles to the flow front with very little cooling and at a much greater speed. Geologists believe lava reaches speeds of 23 miles per hour in some lava tubes



2018 Lava forming winding river as it moves down the side of Kilauea. NPS

Rift lava tubes

Rift lava tubes form on the flank of a volcano in a fissure. Rift lava tubes form after a large crack in the ground opens and lava flows out of the volcano. The lava flows downhill inside the fissure because it is the lowest area on the mountain. The channel in the fissure roofs over creating a lava tube.

When the eruption stops, the lava tube drains out at the flow front leaving behind a cave. Caves that form in fissures are usually high and narrow.

Lava Tubes

Quiz 10

Fill in the blanks using words from the Word Bank

1. _____ in lava tubes are often used as entrances to underground lava caves.
2. _____ tooth stalactites and soda straws are lavacicles found in lava caves.
3. _____ on the flank of Mount St. Helens is one of the longest lava tube caves in the world.
4. Lava tubes transmit lava from the _____ to the flow front.
5. Eruptions of basalt that produce _____ lava flows often form lava tubes.
6. Lava tubes have a variety of stalactite formations that are like ones found in _____ caverns.
7. _____ National Park has the largest concentration of lava tube caves in North America.
8. Rift lava tubes form in a _____ on the flank of a volcano.
9. Volcanologists are currently studying the extensive system of lava tubes located on the _____ of Hawaii.
10. _____ are round tipped formations in lava tubes that are generally a few centimeters in length.

Word Bank

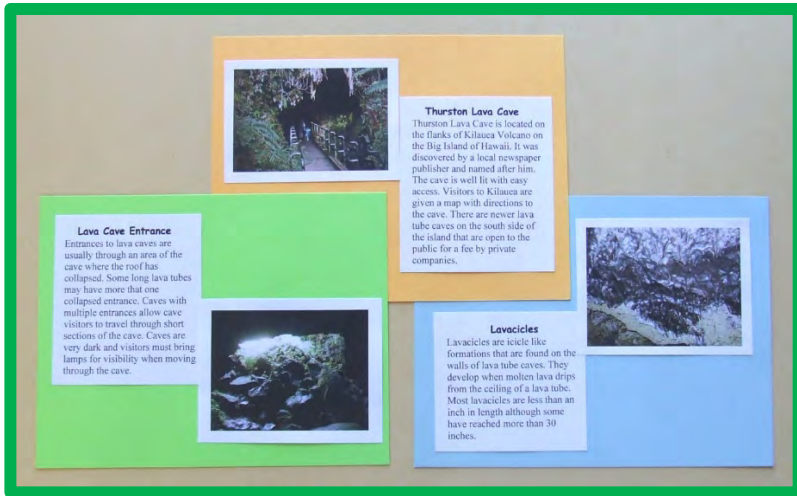
Lava Beds	pahoehoe	skylights	shark	limestone
lavacicles	Big Island	fissure	vent	Ape Cave

Cave Cards

Activity 10

Introduction

Lava tubes are roofed-over segments of lava flows. Lava tubes may contain flowing lava, be plugged with solidified lava, or empty. If the tubes are empty and have an entrance, they may qualify as a cave. In this activity, you will be creating cards with pictures of lava tubes caves, skylights and lavacicles.



Materials

- Pictures of lava caves
- Colored pencils or felt pens
- Scissors
- White paper
- Construction paper

Directions

1. Search for pictures of lava caves, different types of lavacicles, and skylights of lava tubes on the web using a search engine like Google or Bing.

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SE Igneous Rocks

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