

Interdisciplinary Exploration

S 6.1.e, 6.2.d

Pompeii

In the Shadow of Vesuvius

Which ancient city . . .

- was destroyed in one day?
- lay buried for centuries?
- is a window on ancient Roman life?

Nearly 2,000 years ago, the city of Pompeii prospered on the fertile slopes near the volcano Vesuvius. About 100 kilometers north of Pompeii was the city of Rome.

Pompeii was a small but popular trading center and site for luxury Roman villas. When Vesuvius erupted violently in A.D. 79, thousands of Pompeians were caught unawares. Ash, hot gases, and rocks trapped and preserved this ancient city and its inhabitants. Today, excavations at Pompeii reveal the daily life of a bustling city at the height of the Roman Empire.

The Forum

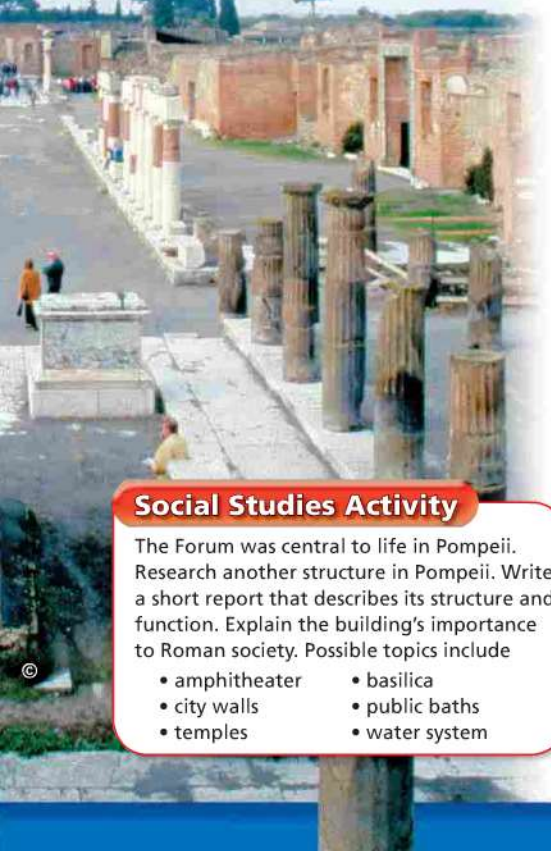
Mount Vesuvius looms behind the ruins of the Forum at Pompeii.





Fresco From Pompeii

This fresco portrays an educated couple. Here the wife holds a stylus and wax tablet, and the husband holds a scroll.



Social Studies Activity

The Forum was central to life in Pompeii. Research another structure in Pompeii. Write a short report that describes its structure and function. Explain the building's importance to Roman society. Possible topics include

- amphitheater
- basilica
- city walls
- public baths
- temples
- water system

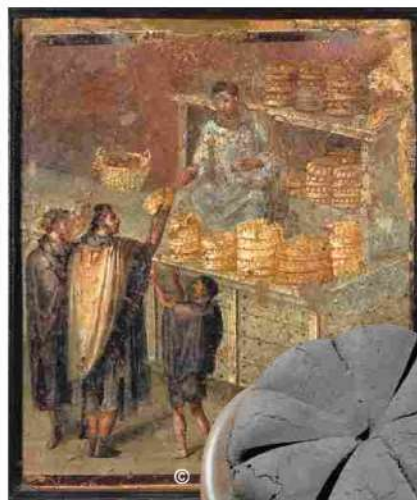
Daily Life in Pompeii

Excavations at Pompeii began in the mid-1700s and continue today. The findings have been astounding. Life stopped abruptly that fateful day. Thousands abandoned their meals or left food simmering on the fire. A baker had just placed the day's round loaves of bread in the oven. A jeweler left his work unfinished on a bench. Houses and public buildings that remained intact reveal daily life through frescoes (wall paintings), sculpture, mosaic floors, and expansive indoor courtyards.

At the center of city life was the Forum, a large, rectangular open space where Pompeians conducted business and politics. Here people sold meat and fish as well as fruits, vegetables, grapes, and olives grown on the fertile slopes of Vesuvius. Some merchants sold cloth made from the wool of sheep raised nearby. Others sold copper pots, oil lamps, furniture, and glassware. People of all classes gathered at the Forum to exchange ideas, notices, and gossip. Some even wrote graffiti on the walls!

Bakery and Bread

This fresco, found in Pompeii, shows a man purchasing bread. A carbonized loaf of bread, below, indicates how bread was cut into wedges.



Vesuvius Erupts!

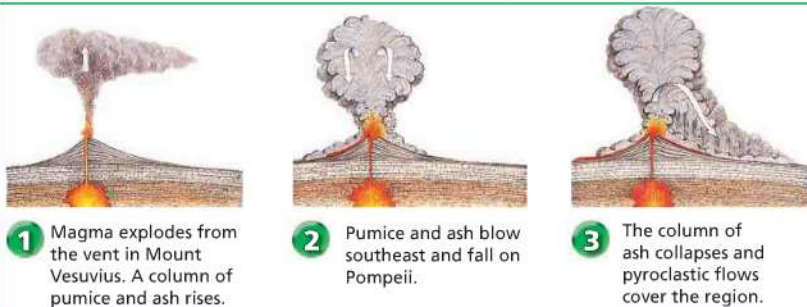
Most volcanoes and earthquakes occur along plate boundaries, where Earth's crust is fractured and weak. Unknown to the people of Pompeii, their city and surrounding areas rested directly over a subduction zone where the Eurasian plate meets the African plate. Although Mount Vesuvius had erupted in the past, the volcano had lain dormant for hundreds of years.

Around noon on August 24, A.D. 79, the volcano suddenly exploded. Volcanic ash and gases shot 27 kilometers into the air. During the rest of the day and into the night, 3 meters of ash blanketed the city. But the destruction wasn't over. Around midnight, a deadly pyroclastic flow poured over the entire area, trapping about 2,000 Pompeians who had not yet escaped. Afterward, an additional 3 meters of volcanic debris rained down on Pompeii. This layer of material sealed the city, preserving it nearly intact for centuries.



The Great Eruption of Mt. Vesuvius

This eighteenth-century painting is by Louis-Jean Desprez.



1 Magma explodes from the vent in Mount Vesuvius. A column of pumice and ash rises.

2 Pumice and ash blow southeast and fall on Pompeii.

3 The column of ash collapses and pyroclastic flows cover the region.

Science Activity

Different kinds of lava vary in silica content and temperature and therefore spread at different rates. Use molasses to model lava flow rates.

1. Measure one tablespoon of molasses and slowly pour it onto a plastic plate. Time and record how long it takes for the molasses to stop spreading.
2. Add one tablespoon of sand to one tablespoon of molasses. Stir the mixture thoroughly. Repeat the pouring and timing of Step 1.

How does the sand affect the molasses' rate of flow? What does the sand represent in your model? How would a volcano with this type of lava be likely to erupt?

3. Heat one tablespoon of molasses over a hot plate. Repeat Step 1. How does the rate of flow of the heated molasses compare with that of the molasses in Step 1? What can you conclude about the effect of temperature on the flow rate of lava?

Eyewitness Account

Pliny the Younger (around A.D. 62–113) was a nephew of the scholar and historian Pliny the Elder. When he was about 17 years old, he witnessed the eruption of Mount Vesuvius while visiting a city across the bay from Pompeii. Some 25 years later, Pliny the Younger described the terrifying scene in a letter to the historian Tacitus.

Excerpt from Pliny the Younger's letter to Tacitus, about A.D. 104

"I look back: a dense cloud looms behind us, following us like a flood poured across the land. . . . A darkness came that was not like a moonless or cloudy night, but more like the black of closed and unlighted rooms. You could hear women lamenting, children crying, men shouting. Some were calling for parents, others for children or spouses. . . . There were some so afraid of death that they prayed for death. . . . It grew lighter, though that seemed not a return of day, but a sign that the fire was approaching. The fire itself actually stopped some distance away, but

darkness and ashes came again, a great weight of them.

We stood up and shook the ash off again and again, otherwise we would have been covered with it and crushed by the weight. . . .

At last the cloud thinned out and dwindled to no more than smoke or fog. Soon there was real daylight. The sun was even shining, though with the lurid glow it has after an eclipse. The sight that met our still terrified eyes was a changed world, buried in ash like snow."



▲ Pliny the Younger

Language Arts Activity

An eyewitness account is a firsthand, factual account of an event or experience. Pliny the Younger filled his letter with vivid sensory details—details that help the reader see, feel, smell, taste, and hear—in order to convey what the Vesuvius eruption was like.

Choose an interesting event that you've witnessed. Write an eyewitness account of it. Provide readers with key facts, such as the time and place of the event, along with interesting and vivid details.



Dog at Pompeii

This is a plaster cast of a dog left chained to a post during the eruption of Vesuvius.