

1. What signs in the soil indicated magma was moving under ground?

- The soil cracked and bulged when the magma moved beneath it.

2. How might these signs help scientists predict a volcanic eruption?

- The presence of these signs may indicate that magma is rising towards the surface. This may result in a volcanic eruption.

3. How does rising magma affect land with no hard rock above it?

- A mound can form in the land. Fractures can also form in the overlying land.

4. What happened when the room-temperature magma reached the surface of the soil?

- The room-temperature magma formed a bulbous structure. It did not spread out. It stayed together.

Example



Example



5. How did the flow of the room-temp magma differ from the hot magma?

- The hot magma was more fluid (runny). Heat caused it to flow more freely across the soil's surface.

6. What happened to the soil when you drained the heated magma?

- The magma retreated from the soil, causing the soil to collapse into a bowl-shaped depression.

Example



7. How did structure in figure 11.7 form?

- Thick, slow magma slowly pushed upward forming the dome-like structure, a lava dome, in figure 11.7. This is similar to our investigation with the room-temperature magma.

8. How did the structure in figure 11.10 form?

- Runny, hot magma broke through the surface of the crust. After the magma drained into the crust, the crust sank lower than the surrounding land forming the structure, a caldera, in figure 11.10. This is similar to our investigation of the hot magma.

A few things...

- In our lab we used cold and hot magma.
- This does not mean that cold magma makes lava domes and hot magma makes calderas.
- We did the activity this way because the hot gak is similar to the magma that creates calderas.
- Temp. can affect the fluidity of a substance (like magma) but so can other things that we will discover in lesson 12.