A quick note…

- In our magma activity we used hot and cold magma.
- We did this so we could have less viscous (hot) and more viscous (cold) magma.
- The landforms we observed were created by the viscosity of the magma, which was changed due to its temperature.
- So, it's not the temperature that caused the landforms, it's the viscosity of the magma that did.

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.
- This mound is called a Lava Dome.

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

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

Lava Dome Example

Lava Dome Example

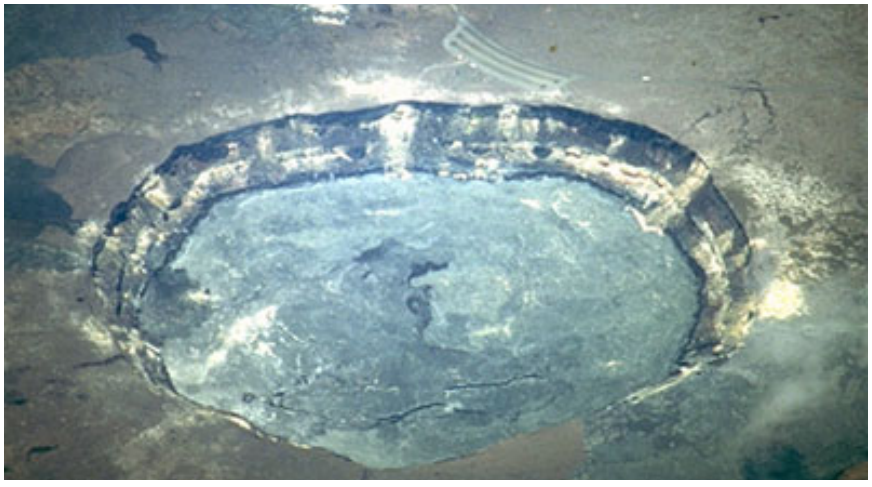
5. How did the flow of the room-temp magma differ from the hot magma?

- The hot magma was less viscous (more fluid). 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. This is called a caldera.

Caldera Example



7. How did structure in figure 11.7 form?

- Viscous, 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.