



Let's Make Dome Volcano and Shield Volcano



Let's verify how Kawayu Sulphuric Mountain was created.



Viscosity of dental alginate impression material to use as a magma

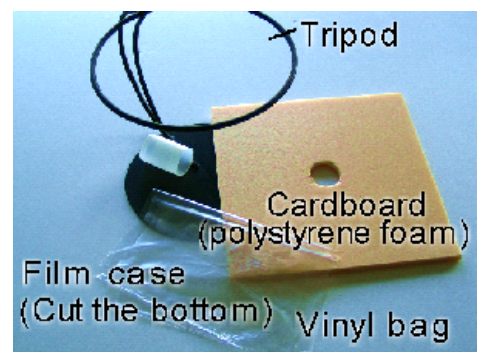


Prepare



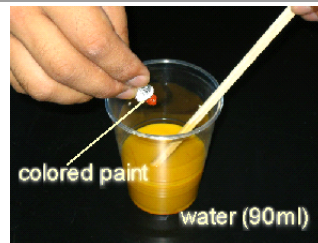
- Cardboard or polystyrene foam (25cm × 25cm)
- Vinyl bag (About 24cm × 18cm、× 2)(plastic bag)
- Tripod (ex. Flower stand)
- Dental alginate impression material (25g × 2)
- Water (90ml and 60ml) • Colored paint • Cutter
- Film case (Cut the bottom)

* Make a hole on the cardboard's or polystyrene foam's center (3cm in diameter.).



Experiment

- 1 Put the colored paint into a plastic cup with water (90ml) and mix well.



- 2 Mix the dental alginate impression material (25g) & colored water in a vinyl bag to create artificial magma.



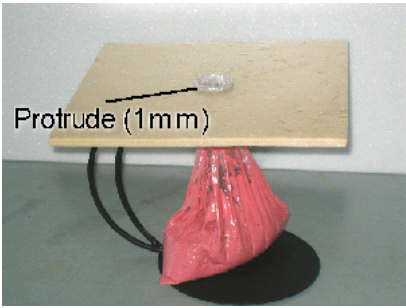
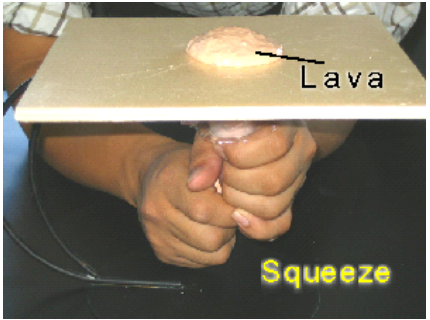
- 3 Mix them for about 30 seconds by quickly rubbing the vinyl bag.



- 4 Thread the vinyl bag's top opening through the film case. Fold the excess part of the vinyl bag downward.



Do this quickly ! ! ! !

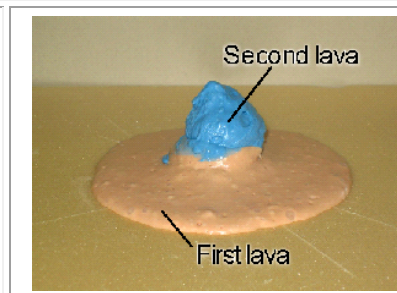
<p>5 Insert the film case with the top portion of vinyl bag (method 4) on the polystyrene foam's hole (placed on a tripod) from beneath letting 1mm of it protrudes on the surface of the board as shown in the photo.</p>		
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6 Slowly squeeze the vinyl bag to make first eruption. Less viscous lava erupted forming a lava plateau.

After it harden, take out the plastic bag from polystyrene.

7 Let's try changing the amount of water in method 1. Let's use 60ml of water with different color of paint. Then follow method 2-6. A different kind of lava is erupted again in the hole of polystyrene foam. Highly viscous of lava erupted resulting in a dome shape.

Highly viscous lava will make dome shaped lava.



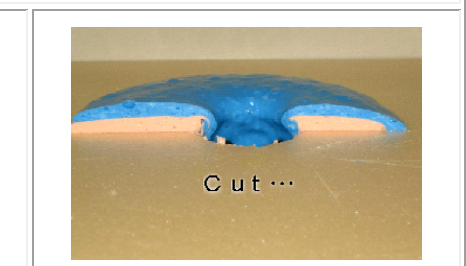
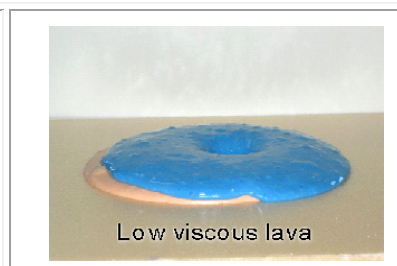
Experiment 2

8 Cut your volcano into half using cutter so could observe its cross section.



Progress

Can you guess what will happen if you change the amount of water (ex. 100ml) in second eruption of the volcano? Observe the shape of the mountain.



Information

- 📌 Dental alginate impression material is used by dentists to make the model of teeth.
- 📌 You can ask dentists where you can buy the dental molding agent.

