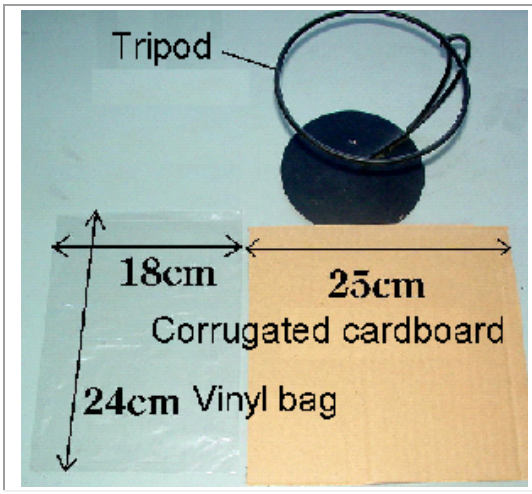
Let's Make a Dome Volcano

Point

Wheat flour stickiness looks like magma

Materials

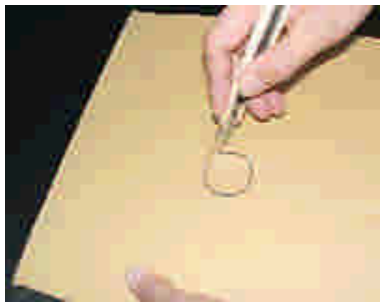
Corrugated cardboard(25cm×25cm)
Vinyl bag(about24cm×18cm)
Tripod(flower stand that can buy all 100 yen apiece)
Wheat flour(80g)
Water （50 g）
Cellophane tape
Cutter



Method

Preparation for Experiment

1 Make a hole which size diameter is 3 cm in center of corrugated cardboard.



2 Put wheat flour (90g) and water(50g) in vinyl bag.

3	Rub the vinyl bag by hand to create artificial underground magma. It becomes sticky resistant magma.	
4	Let the upper part of vinyl bag out corrugated cardboard hole. And stick that to corrugated cardboard with cellophane tape.	
5	Squeeze vinyl bag with wheat flour (method 3) by hand lightly and lava (magma appear the surface of the earth) . Then magma protrudes higher in corrugated cardboard.	
6	Spread soybean flour on corrugated cardboard about 5mm thick. This will be the ground.	
Let's create eruption!		
1	Wring vinyl bag slowly.	

2	Observe the state of ground (surface of soybean flour) before and after the lava go out and go out lava shape.		
3	Compare it with Showa Shinzan picture.		

Development Try add to water

- Also *Kawayu* sulfur mountain (*Atosanupuri)* and the outskirts of mountain same shape. Let's found another mountain like this shape.

  Picture of *Atosanupuri* using [earth science multimedia teaching material] is from Hokkaido High school Science research society research department earth science.

- Add water 100g to wheat flour 80g to make magma. What shape of lava will it produce?

Information

Mountain shape in different viscosity

- If magma have high viscosity. it makes dome state mountain like Showa shinzan, Kawayu sulfur mountain. (lava dome)
- If magma have low viscosity, it makes dome state flat volcano like Miharayama that in Izuoshima, Kilauea in H.awaii
- **Showa shinzan birth by volcano activity at the end of 1943. This volcano becomes today's shape after the ground cracked about a year and 10 months.**