

new

Vol. 4



# Let's Make a Lava



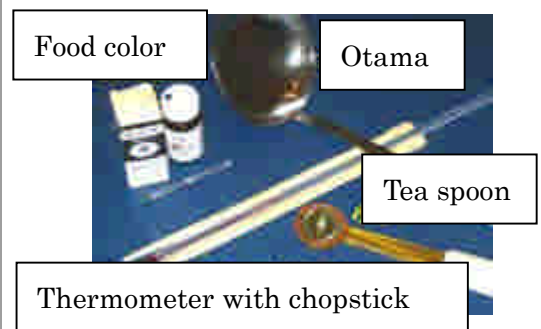
Make a model of lava

Point

Black brittle

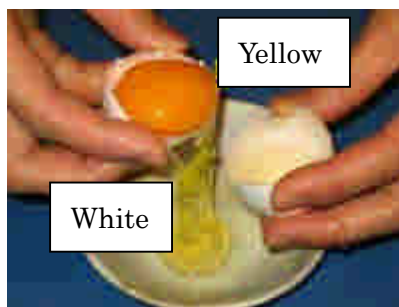
Materials

- Otama
- High purity crystallized sugar    • White sugar
- Egg    • Bicarbonate of soda
- Water    • Disposable chopstick    • Cup
- Measuring spoon    • Gas
- Black food color
- Thermometer

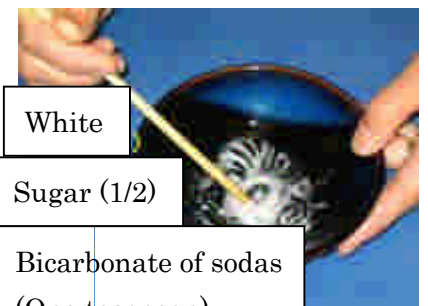


## \*Make a bicarbonate of soda\*

1 • Separate the yellow from the white.



2 • Mix bicarbonate of soda (a teaspoon) and sugar(1/2 teaspoon) about 2 minutes to become like a sherbet.



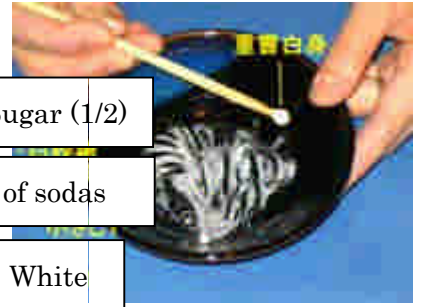
3

Put it on the end of a chopstick.

Sugar (1/2)

Bicarbonate of sodas

White



## Let's do the experiment

1

Put the high purity crystallized sugar(30g) and water(11g) and black food color (2 teaspoon) into the otama.

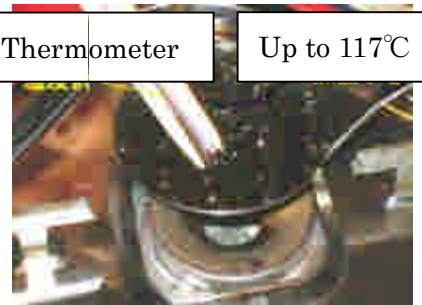
Black food color (2 teaspoon)



Sugar (30g) and water(11g)

Thermometer

Up to 117°C



2

Heat the otama and mix it with the chopstick.

3

At 117°C, remove the otama and put it on the newspaper. Then, wait 30 seconds (after big bubbles vanish ) and mix it using the chopstick with bicarbonate of soda quickly 30 times.



「Waiting till the big bubbles vanish」 is important

4

Remove the chopstick from the center and wait 2 minutes.



Risingl

5

Divide it into two.



Turn it

6

## 🌸 Compare the lava 🌸

• Compare it with real lava



Mt Aso Lava



Blittle lava

### 💡 Information

💠 Brittle has many holes because carbon dioxide expand into melting sugar by heating the bicarbonate of soda.

💠 When magma is under the ground, water vapor or gases are enclosed,

but when magma goes up to the ground, the pressure becomes smaller and water vapor and gas swell, so the lava gets many holes.

💠 There are differences between carbon dioxide and water vapor, but the way of making bubbles is very similar.

💠 At the souvenir shop, you can buy lava sweets.

💠 You can buy the black food color in the food additives corner.



[たんちょう先生トップページに戻る](#)

