

Strombolian Eruption

This can be run as a vent eruption, or a lava lake eruption. Both options are shown here.

Required:

Empty yoghurt pot (wide, like the muller light pots)

Plastic tube, ~2 cm diameter, ~10 cm long, open both ends (vent eruption only)

Flexible rubber tube ~40 cm long, ~0.5 cm diameter

Can of tomato soup (not too thin – heinz full fat is ideal)

Can opener if the soup hasn't got a tab!

Base – a sturdy tray or piece of wood

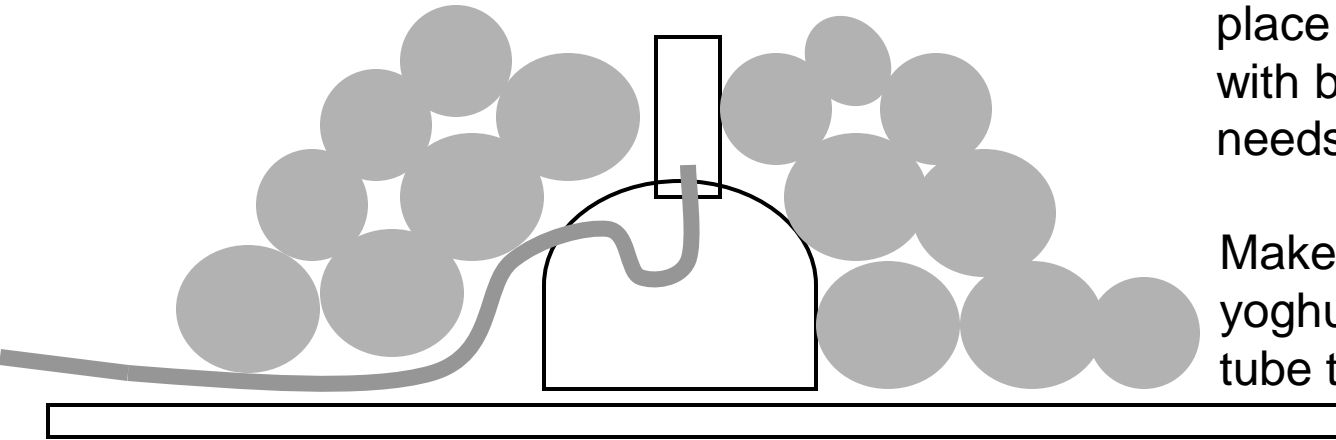
Duct tape

Blue tack

Optional:

Pebbles, gravel, dirt; alternatively, foil or plastic sheeting

Strombolian - vent option



Feed the rubber tubing ~2 cm into the plastic tube. Fix it in place and seal the end tightly with blue tack and duct tape. It needs to be soup-proof!

Make a hole in the base of the yoghurt pot and push the plastic tube through it as shown.

Make a hole in the side of the yoghurt pot, near the base. Feed the rubber tubing through it until only a small section of rubber tubing remains inside the yoghurt pot. Fix it in place using duct tape. Make sure the rubber tubing is not kinked; it should be level or form a u-bend inside the yoghurt pot (this stops soup draining away).

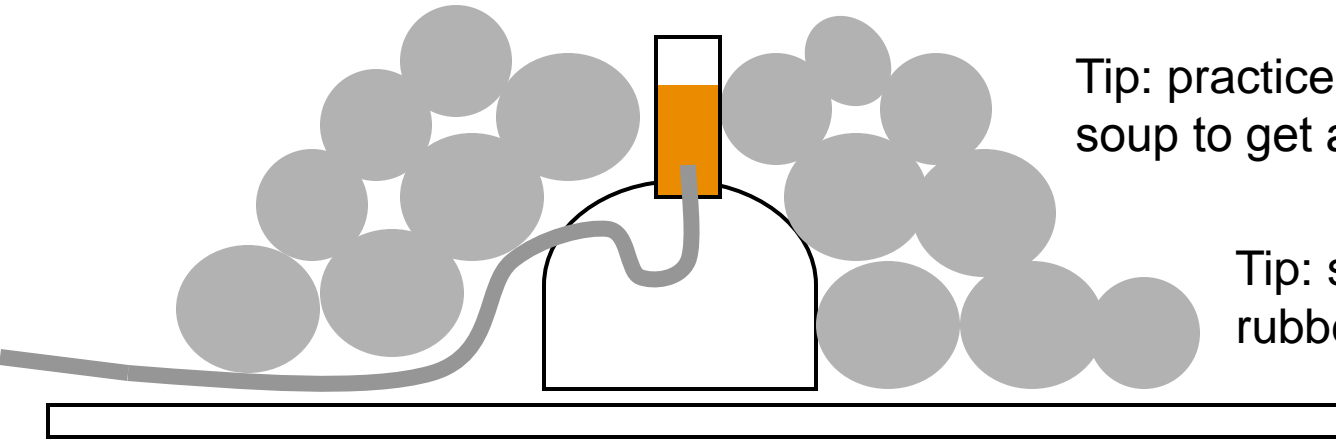
Lead the rubber tubing away, and fix it all in place on the base using duct tape.

Pack pebbles, dirt, or screwed up plastic sheeting around the “vent” to make it look like a volcano.

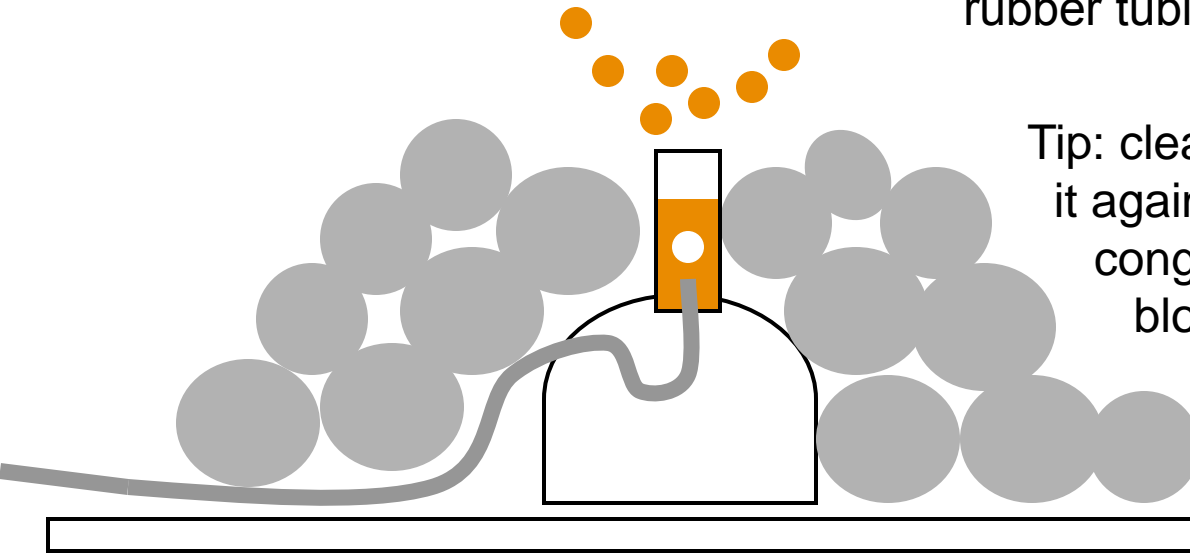
Fill the plastic tube to about 2/3 with tomato soup.

Tip: practice with different amounts of soup to get a good “eruption”.

Tip: soup will drain down the rubber tubing. Leave the free end angled up to avoid a mess.



Blow sharply through the free end of the rubber tubing to make the soup “erupt”.



Tip: clean the set-up if you aren't using it again straight away – soup can congeal in the rubber tubing and block it.

Tip: if you repeat this, spatter will build up on the flanks of the volcano and begin to flow. This happens in real life!

Useful information

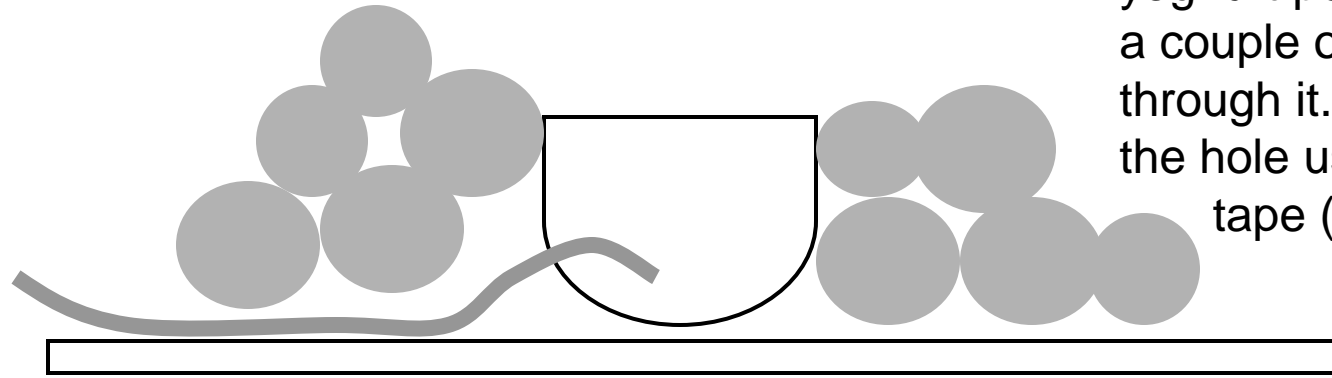
Strombolian eruptions are named after Stromboli, Italy, which erupts this way.

The lava is basalt (so it is very runny) and gas rises through it easily. It is often over 1000°C.

Large bubbles of gas (as simulated here) are called gas slugs!

Strombolian – lava lake option

Make a hole in the side of the yoghurt pot, near the base. Feed a couple of cm of the rubber tubing through it. Fix it in place and seal the hole using blue tack and duct tape (it needs to be soup-proof).

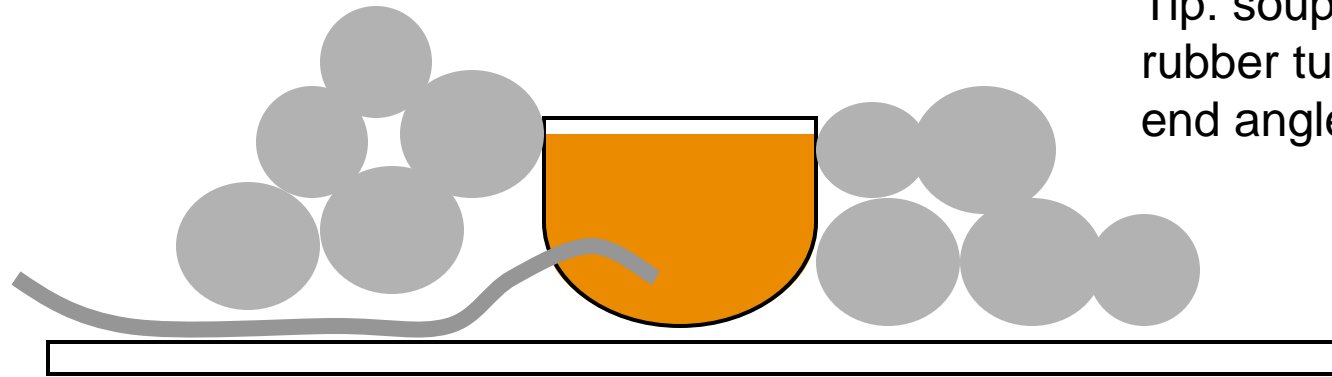


Lead the rubber tubing away, and fix it all in place on the base using duct tape. Make sure the rubber tubing is not kinked.

Pack pebbles, dirt, or screwed up plastic sheeting around the “lake” to make it look like a volcano.

Fill the yoghurt pot with tomato soup.

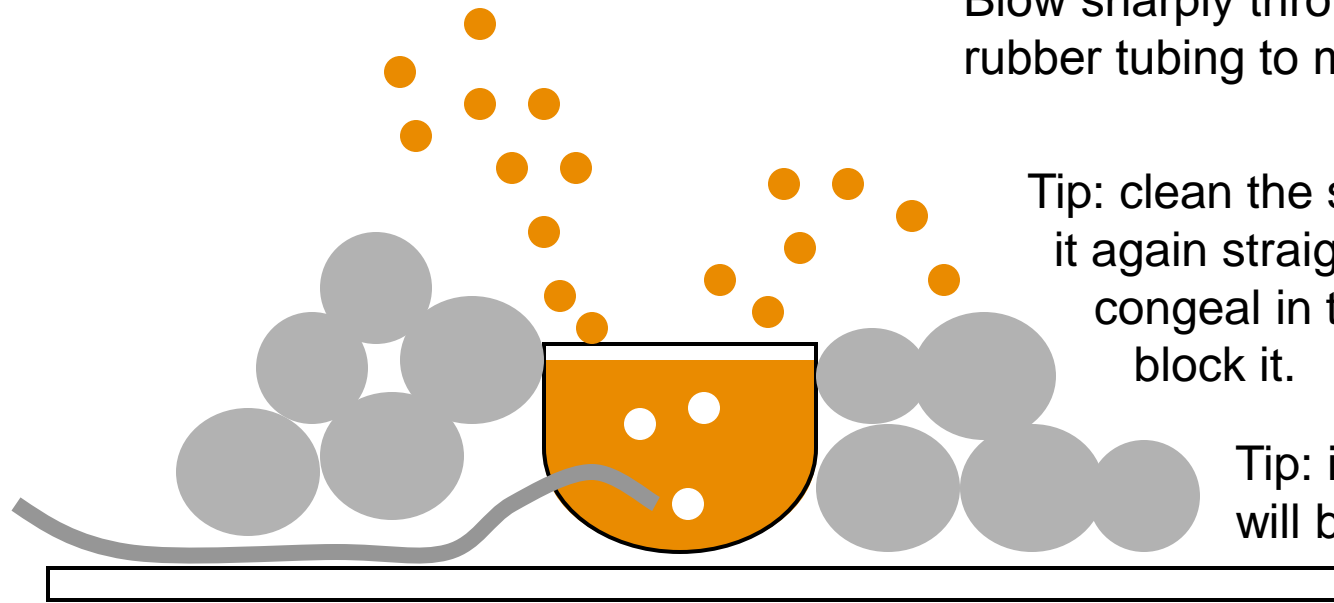
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Lava lakes are not as common as vents. They can solidify, overspill, or drain.