

CRUNCH TIME

Home Made Lava Lamp



Serve information: Will Make 1 Lava Lamp

INGREDIENTS:

800ml Vegetable oil
400ml Water
3 Drops blue food colouring
5 Drops yellow food colouring
6 Heaped teaspoons antacid powder
Oil, water and blue food colouring in bottle

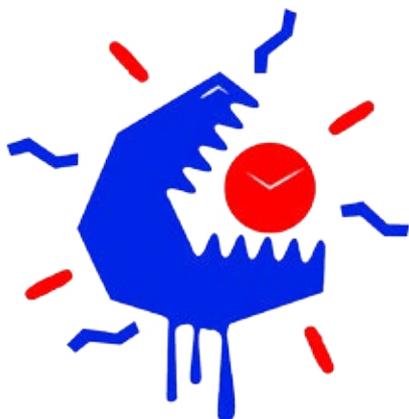
EQUIPMENT:

Plastic tray
2 Empty 1.25ltr plastic bottle with lid
2 funnels (one for wet and one for dry ingredients)
Long wooden skewer



METHOD:

1. Place an empty 500 ml water bottle on a plastic tray.
2. Pour 800ml of vegetable oil into the bottle using a funnel.
3. Add 400 ml of water into the bottle using a funnel.
4. The water will sink to the bottom, and the oil will remain at the top. When you try to mix oil and water together, they'll separate. The oil floats to the top because it's less dense than the water.
5. Add 3 drops of blue food colouring to the bottle. The food colouring 'breaks through' and starts to tint the water blue, until we have a small layer of blue water below a larger layer of oil.
6. You may need to use the skewer to help it break through the surface of the water. Give it a gentle stir to mix in.
7. Take "prepared earlier" bottle. To see if oil and water will mix, with the lid on, shake the bottle vigorously. See how the contents of the bottle look a bit cloudy? If we wait a few moments, we should see the oil rise back to the top, and the blue water end up back to the bottom again.
8. Let's try something that'll temporarily help some of the water rise up:
Add 3 heaped teaspoons of antacid powder into the bottle using the funnel.
9. Once the antacid powder sinks down into the water, breaking through the oil layer, it will start to dissolve. Bubbles of carbon dioxide in the water will make buoyant blobs that float in the oil. As the coloured blobs reach the surface, the bubbles will pop. This causes the blobs of water to become less buoyant and sink again. This is our lava lamp effect.
10. How about we try altering the colour of our lava lamp? Once the blue water sinks back to the bottom, we can add a 5 drops of yellow food colouring in the top of the bottle. The yellow food colouring will 'break through', and then start to mix with the blue water. This will turn it green.
11. Use the skewer again to help it break through the surface and mix with the water.
12. Add another 3 heaped teaspoons of antacid powder into the bottle, using the funnel, so we can see the lava lamp effect again: this time in green.



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