



EASY LAVA LAMP

INSTRUCTIONS:

1. Fill water into the plastic bottle until it is one quarter full.
2. Add vegetable oil until the bottle is nearly full. (you should use a funnel so you don't spill.)
3. Wait until the water and oil have separated.
4. Add 12-15 drops of food coloring to the bottle.
5. Watch as the food coloring falls through the oil and mixes with the water.
6. Cut an Alka-Seltzer into small pieces (4-6) and drop one into the bottle. Things should start to get moving, just like a real lava lamp.
7. When the bubbling stops, add more Alka-Seltzer and enjoy the show!

You may already know that oil and water don't mix well. The oil travels to the top because it has a lower density than water. When dropped in, the food coloring does not mix with the oil, but slowly falls through it and then mixes with the water at the bottom. Be patient as it may take a couple of minutes.

The Alka-Seltzer tablet you drop in releases many small bubbles of carbon dioxide gas that rise to the top and take some of the colored water along for the ride. The gas escapes (the bubbles pop) when it reaches the top and the heavier colored water falls back down. The Alka-Seltzer fizzes because it contains citric acid and baking soda (sodium bicarbonate), the two react with water to form sodium citrate and carbon dioxide gas (those are the bubbles that carry the colored water to the top of the bottle.)

Adding more Alka-Seltzer to the bottle keeps the reaction going so you can enjoy your lava lamp longer. If you want to keep the project to show someone later, you can simply screw on a bottle cap and add more Alka-Seltzer later. When you've finished all your Alka-Seltzer, you can take the experiment a step further by tightly screwing on a bottle cap and tipping the bottle back and forth. What happens then?

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WHAT YOU WILL NEED:

- Water
- Clear plastic Bottle
- Vegetable oil
- Food coloring
- Alka-Seltzer (tablet form)

