



MAKING A HOMEMADE LAVA LAMP

Explore how density and chemical reactions
create motion and bubbles!



WHAT YOU'LL NEED:

- 1 clear bottle or jar (at least 16 oz / 500 ml)
- Vegetable oil
- Water
- Food coloring
- Antacid tablets (Alka-Seltzer or generic)
- Small bowl or cup
- Spoon
- Flashlight or light source (optional)



WHAT'S HAPPENING?

Oil and water don't mix. Oil is less dense than water, so it floats on top. When an antacid tablet is added to the water, it reacts and releases carbon dioxide gas. The bubbles attach to drops of colored water and lift them up. When the gas escapes, the drops become heavier and sink back down.



STEP-BY-STEP:

1. Fill the bottle about 1/3 full with water.
2. Add 10–15 drops of food coloring to the water and stir gently.
3. Slowly pour vegetable oil into the bottle until it is almost full. Wait a few minutes for the oil and water to separate. (Tip: Pour oil down the side of the bottle slowly.)
4. Break an antacid tablet into pieces.
5. Drop one piece into the bottle and watch!
6. Add more pieces, one at a time, for continuous lava lamp action.



WHAT TO OBSERVE:

- Notice how the colored blobs rise and fall.
- Watch what happens right after you add a tablet.
- Observe how the blobs change size as they move.
- Try it in a darkened room with a flashlight underneath for extra effect!



PREDICT:

What do you think will happen when you drop an antacid tablet into the bottle?



RESULTS:

What happened?

What did you learn?



CHALLENGE: Try using different amounts of water or oil. What happens if you add more food coloring or use a larger tablet? Experiment and find out!