



Lava Lamp

TAILS AND TALES™

15-minute STEAM
2021 Summer Reading

Supplies:

4 tbsp. of Baking Soda	1 clear bottle with cap
12 oz vegetable oil	1/4 cup vinegar
Food coloring	1 plastic cup
Pipette or eye dropper	Spoon
Funnel (optional)	



1. Using the funnel, pour 4 tablespoons of Baking Soda into the bottle. Shake the bottle a bit to let the baking soda settle into a flat layer at the bottom.
2. Pour in the vegetable oil slowly to avoid disturbing the layer of Baking Soda and set aside. You may need more or less depending on the size of the bottle.
3. Pour vinegar into a plastic cup. Add 3-4 drops of food coloring and stir to combine. You can experiment with different colors for a more unique lamp effect.
4. Use the pipette to add drops of colored vinegar to the plastic bottle. Watch the reaction!
5. Continue to add drops of vinegar until bubbles stop floating to the surface.

The Science

Baking soda is sodium bicarbonate, a chemical compound known as a base. A base is substance that releases hydroxide ions when combined with water. An acid is a substance that contains a high concentration of positive hydrogen ions. In this experiment vinegar is the acid.

When an acid and a base are combined, a chemical reaction occurs. During a chemical reaction, chemical bonds in a substance are either destroyed or created. When sodium bicarbonate and vinegar are combined they react and produce carbon dioxide, a gas which you see bubble up as soon as the vinegar droplets come into contact with the baking soda.

Taken in part from www.armandhammer.com/en/recess



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