



*Make drops of vinegar fly up and down!*

**Material:**



- vinegar,

- oil,
- baking soda,
- a glass or jar.

### Instruction:

At the bottom of the glass pour baking soda layer ( about 1 cm. thickness). Soda should not be on the walls.



Then, pour the oil into a container. Get him carefully down the side of the glass, taking care to not mixed with the baking soda. The glass should be filled almost completely.



Add to the oil a few large drops of vinegar.







If the experiment is carried out accurately, drops wander up and down like a yo-yo.

### **Explanation:**

Vinegar is an aqueous solution of acetic acid,  $\text{CH}_3\text{COOH}$ . Soda is sodium bicarbonate,  $\text{NaHCO}_3$ . Vinegar has a higher density than the oil, that's why it sinks in the glass. When it touches the surface of the soda, comes the reaction:

acetic acid + sodium bicarbonate  $\rightarrow$  sodium acetate + carbonic acid

