

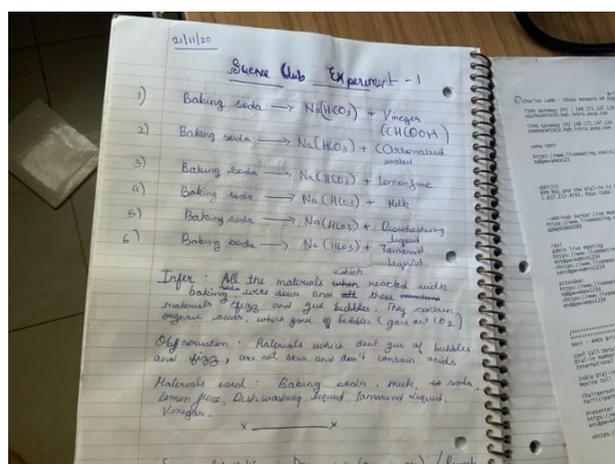
Science Club Activity

An Acid Test for the Science Club? -Testing the Sourness of Different Liquids

In the second meeting of the science club on 21st Nov things were turning interesting. We did an experiment to test the sourness of different liquids. The two teachers guiding us Mrs. Anitha and Mrs. Vasanthi were carefully giving us instructions. Everyone had all their supplies, neatly organised on the table, all of us excited to begin the experiment. The materials we all had were: baking soda i.e. $[\text{NaHCO}_3]$, two teaspoons of milk, dish washing liquid, soft drink, vinegar, tamarind extract, lemon juice, as well as a spoon, a plate, and last but not the least, six cups or glasses. With both the teachers assisting us, we tried out the experiment. It was indeed enjoyable to know which one of the liquids fizzed out when baking soda was added. We guessed that the liquids which had acids gave out carbon dioxide in the chemical reaction. Substance which has acid reacts with baking soda, creating carbon dioxide. It's the carbon dioxide that causes the fizz or bubbles.

The sour taste is actually influenced by the acids present in foods. Baking soda is a base (sodium bicarbonate) that reacts with acids to generate carbon dioxide gas. By doing this simple experiment we found out that if the food is acidic or not, using baking soda. The escaping gas can be easily spotted as it forms bubbles, once the acid comes in contact with the baking soda. Soft drinks did not taste sour at all - even if they contain lots of acids. The secret is that the sour taste is often masked with the addition of lots of sugar.

We learned a lot, and had loads of fun doing the experiment. Brimming with curiosity, the science club members hope to do lots of experiments on similar lines.. On the whole, this test which we all performed has triggered our scientific quest. We have understood that research is formalised curiosity. The pictures below show the experiment which we did, along with our observations.



VINEGAR – contains acetic acid



water – No reaction



Lemon Juice – contains Citric acid.



Milk – no reaction



Dish washing liquid – No reaction



Tamarind extract – reaction takes place



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