

## **Lemon scones**

1/8 cup flour

1 tspn sugar

1/8 tspn baking soda

1/2 tspn lemon juice

1 tbspn buttermilk

Mix into a ball

Bake

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## The chemistry of baking and rockets

Today in science club we did some baking and shot off a rocket. Both had the same chemistry happening in them.

We made scones, and while they were baking we experimented with the ingredients to figure out which ones make a gas when they are mixed together (baking soda and lemon juice, also baking soda and buttermilk). When baking soda mixes with something sour a gas is made. We used molecule models to show the chemical reaction that makes the gas. (The gas is carbon dioxide). Once the scones were baked we found the holes made by the gas, then we ate our experiment!

Then we watched a rocket being shot off. The rocket worked with the same chemistry as our scones: baking soda and vinegar were mixed inside the rocket. They make a gas, which builds up pressure inside the rocket, until the rocket detaches from the base and shoots into the air.

Try this at home:

1. Mix baking soda (not baking powder) with sour liquids to make a soda drink. Use orange juice to make orange soda, or lemonade to make lemon soda. You do not need to add much baking soda - about 1/8 teaspoon in a small cup of liquid. The baking soda and the sour drink mix together to make gas bubbles, which make the fizz in the drink. You can also add sugar to liquids that taste really sour and the gas will still be made when baking soda is added.
2. Baking soda mixed with anything sour makes bubbles. Sour things are called "acids". Try making gas bubbles by mixing baking soda with anything sour you can find in your kitchen (vinegar, lemon juice, tomato ketchup..)

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