Try this

Chemical reaction biscuits

All cooking involves chemical reactions but you are not normally aware of them happening. There is an obvious thermal decomposition reaction which takes place in the middle of this recipe – and you get fabulous ginger biscuits at the end.

You will need:

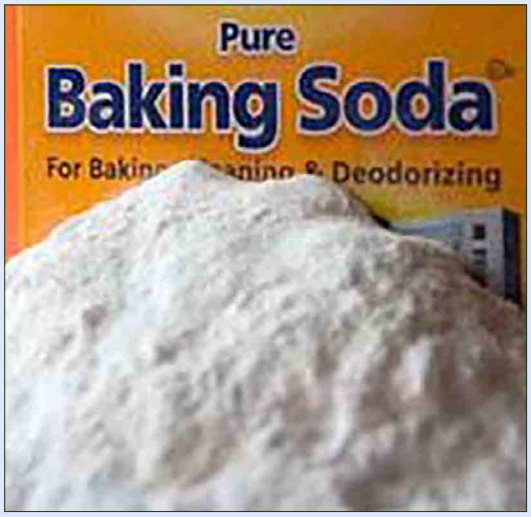
120g butter or margarine
120g self-raising flour
120g oats
120g granulated sugar
1 rounded teaspoon ground ginger
1 level teaspoon bicarbonate of soda
½ level teaspoon salt
1 tablespoon milk
1 tablespoon golden syrup
Mixing bowl
Wooden spoon
2 teaspoons
Small bowl or cup
Saucepan
Baking sheet lined with baking paper
Oven pre-heated to 180°C
Wire cooling rack

What you do:

Mix the oats, flour, sugar, salt and ginger in a mixing bowl. Melt the butter (or margarine) and syrup in a pan. Dissolve the bicarbonate of soda in milk and pour it into the pan, stir briefly. Look for the chemical reaction.

Pour the wet ingredients into the dry ingredients and mix well. Place 1 teaspoon of the mixture in small balls onto the baking sheet. Flatten slightly with a fork. Bake for about 7-8 minutes at 180°C and then cool on a wire rack.Makes about 26.

What's the reaction?



Bicarbonate of soda is sodium hydrogen carbonate, chemical formula $NaHCO_3$. When this is added to the hot butter and syrup mixture it decomposes, producing carbon dioxide, water and sodium carbonate. You can see the gas being produced as the mixture foams and produces lots of bubbles.

$2NaHCO_3 \rightarrow CO_2 + Na_2CO_3 + H_2O$

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Look here!

The same chemical reaction can also be used to make cinder toffee or honeycomb. For details see this Catalyst article: *https://www.stem.org.uk/system/files/elibrary-resources/legacy_files_migrated/31929-catalyst_24_3_579.pdf*