

Hokey Pokey Science



Most Science experiments are not edible, but this one you can eat the end result!

You will need an adult to help with the cooking.

What you need:

- 5 Tablespoons Sugar
- 2 Tablespoons Golden Syrup
- 1 Teaspoon Baking Soda
- Butter
- Small Pot/Saucepan
- Baking Paper



Instructions:



1

Grease the base and sides of a container with butter, or a large (15cm) piece of baking paper.

2

Please note that sugar is very hot when boiling often over 150 degrees, so in these steps please make sure an adult is doing this and the children know not to touch the end product until it has cooled.

Add the Sugar and Golden Syrup into a small pot to melt over a slow heat, keep stirring until the sugar granules have dissolved. Best to use a small heavy based saucepan or pot as this helps stop the sugar from burning.

3

Once the sugar has dissolved turn up the heat slightly and allow it to boil for 2 minutes, try not to stir this mixture but instead gently swirl the pot, this helps stop the sugar reforming crystals and prevent your end hokey pokey from being grainy. Remove from heat.

Observe how it changes in colour, to a darker deeper colour with a runny consistency.

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Instructions:



5

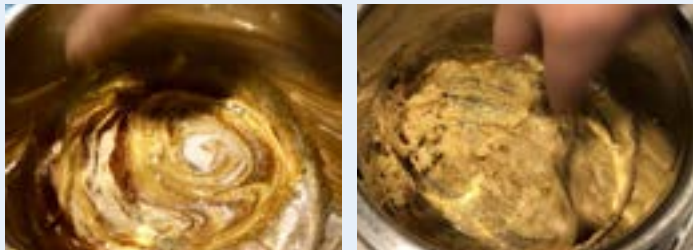
Pour out immediately onto a greased pan or greased baking paper using spatula. Make sure you use a heat rack to place this on as it can get hot.

6

Leave this to cool and set for around a half an hour or more. Then break into bite size pieces.

7

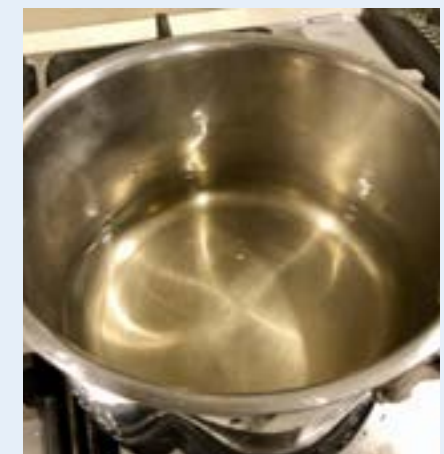
Fill the pot up with water and put on the stove to boil again. This makes cleaning up a lot easier as it can be very sticky and hard to clean up.



4

This is the best time to make your observations!

Immediately add 1 teaspoon of baking soda, stir this vigorously with a fork to make sure it is all mixed in.



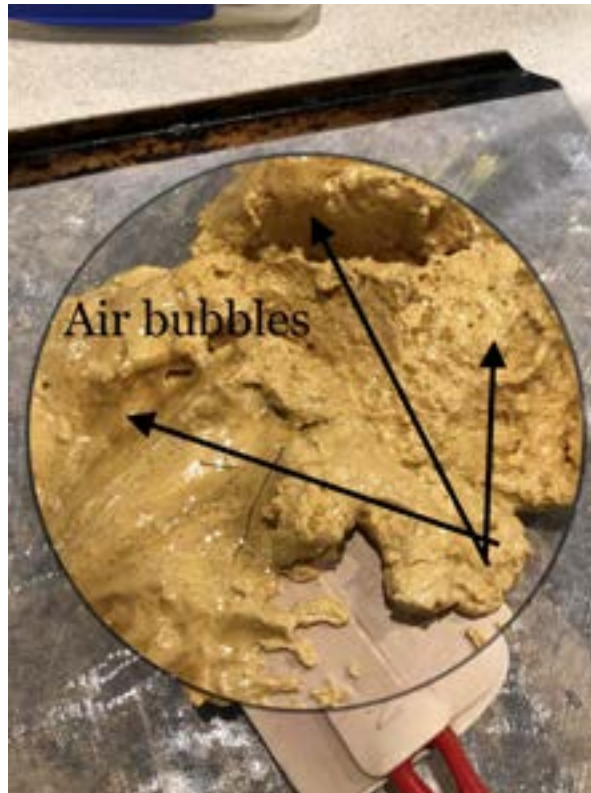
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The Science Behind it:

When the bicarbonate of soda (baking soda) is added to the mixture it forms carbon dioxide bubbles and this causes the mixture to foam up. The sugary syrup then sets around the bubbles creating the foam like consistency of the Hokey Pokey.

Bicarbonate of soda is alkaline and sugar is mildly acidic and when the two combine it causes this chemical reaction. This same bubbling reaction happens when you add baking soda to vinegar like in the baking soda bomb experiment.

A **chemical change** is a chemical reaction that occurs in which a new substance is formed and it is not reversible, it cannot be changed back to its ingredients. It is when more than one thing mixes together and a reaction happens and sometimes something new is made. Making Hokey Pokey is an example of a chemical change.



Results:

Observe what happens when you add the baking soda.

Did it change in size?

Did it change in colour?

Did it change in smell?

Did it change in consistency?

What is the end cooled product like?

Are all these changes permanent or could it change back?

Act Like a Scientist:

Good Scientists like to explore and ask more questions!

Repeat this experiment and observe the changes

- What would the end product be different if you cooled it quicker by putting it into a freezer to solidify?
What happens if you double the baking soda, does it foam up more? Is it still tasty?