Milk and More

BIOCHEMISTRY WORKSHOP

Making Cheese

In this activity you will learn about the cheese making process and have a go at the first part of it yourselves. Please note the cheese product will not be suitable for eating!

What you need

Whole milk
White vinegar
Microwave/Hot water in a bowl
Bowl
Stirrer/Spoon
A piece of muslin or similar

What to do

- Warm the milk in the microwave/hot water bowl – it needs to be warm but not too hot.
- Pour the warm milk into the bowl then add the vinegar. Add 1 teaspoon of vinegar per 140ml (1/4 pint) of milk.
- Stir until the mixture becomes lumpy.
- Use the muslin to strain the lumps of cheese out of hte remaining liquid.
- Rinse the lumps of cheese with cold water then squeeze them into one blob.
- **It's not advisable to eat the product!**

What's going on?

There are hundreds of different types of cheeses but the first step to producing every one of them is to acidify the milk and remove water.
Milk contains protein molecules called casein. Adding an acid like vinegar to the milk causes the casein molecules to stick together forming lumps. These lumps are the curds that are then processed to become cheese. The liquid that remains is known as whey and is mainly water.
Most cheeses use bacteria, known as cultures, and an enzyme called rennet to acidify the milk, rather than vinegar.

'Cheesy facts'

Cheese is one of the world's oldest manmade foods; the ancient Romans wrote about exotic foreign cheeses being exported all over the empire and cheesemaking equipment has been dated as far back as 5,500 BC in Poland.

In the 1920s, this method formed the basis for making an early plastic material known as casein plastic. It was popular for making small items such as buttons, buckles and beads. It was even used to make jewellery for Queen Mary!

To find out more
History of cheese and the cheesemaking process: https://www.greatbritishchefs.com/features/how-cheese-is-made
How cheese is made:
https://www.thecourtyarddairy.co.uk/blog/just-cheese-made-heres-basic-outline/

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