Have a go – making butter

What you need:

- Double cream
- Plastic screw top jar (about 425ml)
- Chocolate mould to shape butter
- Salt
- Flavouring: wasabi paste, garlic, parsley, chilli or similar

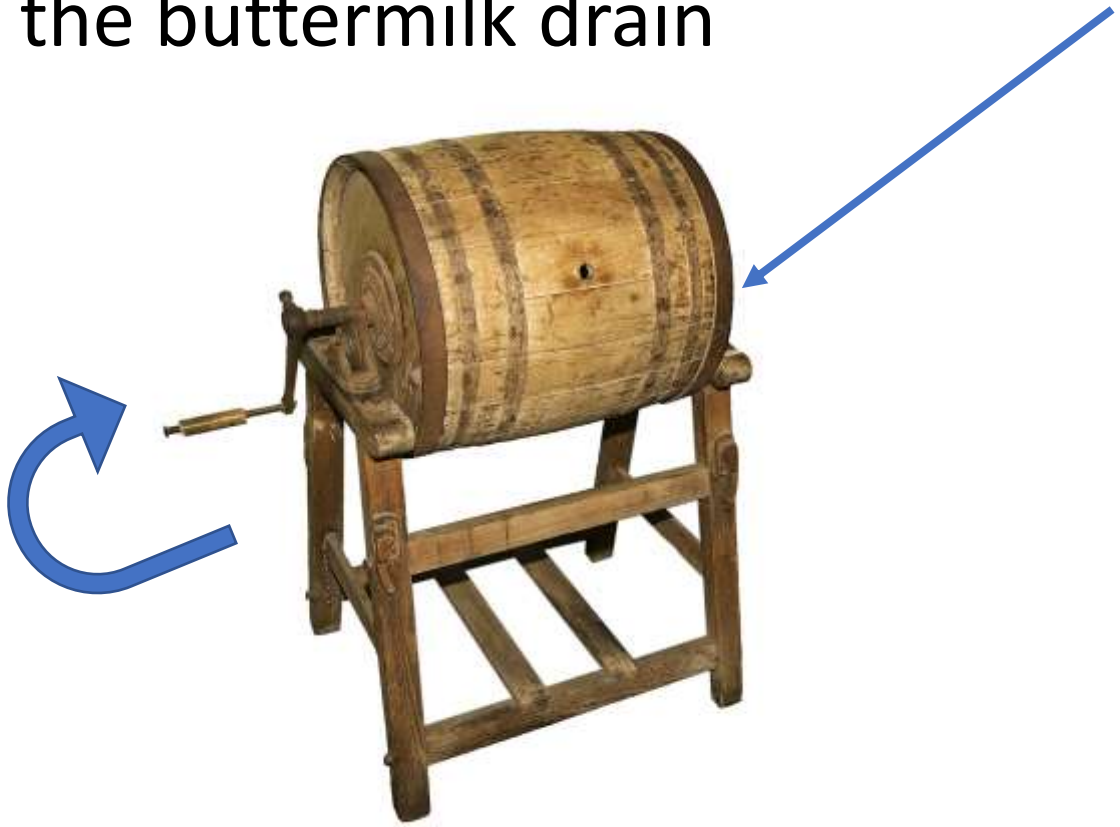
Half fill the jar with double cream

Check out the percentage fat from the label

Shake the jar . . .

Churning is the way that butter is produced from cream

Turning the churn swishes the cream until butter is formed and the plug is removed to let the buttermilk drain



The cream becomes thick

It can cling to the jar

Shake hard

10 minutes

Keep shaking to churn the cream into butter

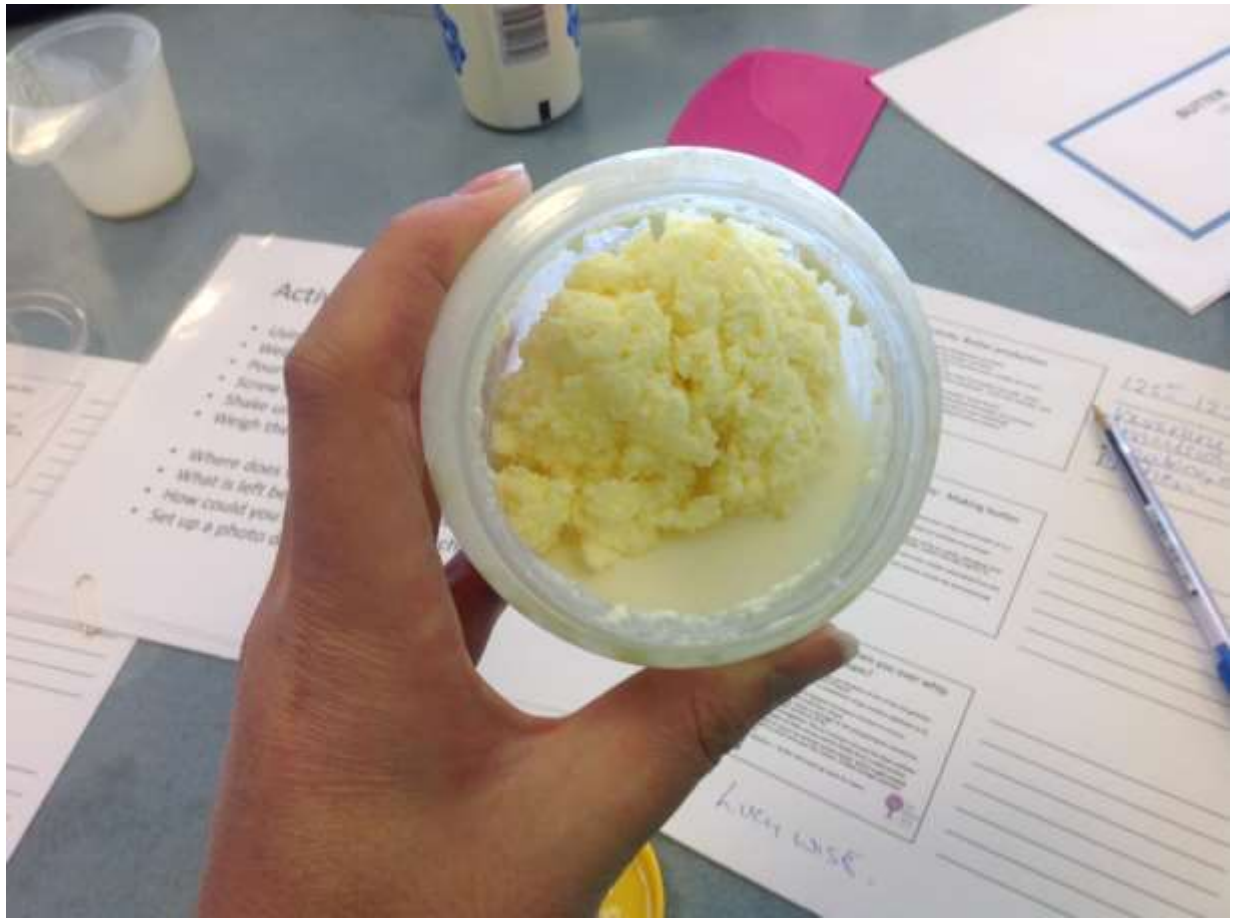
Cream at room temperature churns more quickly than refrigerated cream. How could you investigate this?

Can you make butter using single cream? How could you investigate this?

The butter will cling to the jar so you have to shake it hard for about 10 minutes

Plot your journey of butter production by comparing your jar contents to the photographs coming next . . .

Butter is churned



Drain the buttermilk

Use to make scones or add to a sauce

Flavour the butter if you want

Spread over a mould

Chill & serve

The science behind churning butter

- ✓ Butter can be made in a food processor, using a hand mixer or in a jar
- ✓ The process is by agitation called **churning**
- ✓ As double cream is agitated it incorporates air and becomes thicker
- ✓ Churning causes the little globules of fat to collide, damaging their walls and allowing them to clump together
- ✓ Fatty triglycerides gather into one mass of **butter**
- ✓ Watery liquid known as buttermilk is separated out
- ✓ Incorporated air is expelled, two phases remain butterfat and buttermilk

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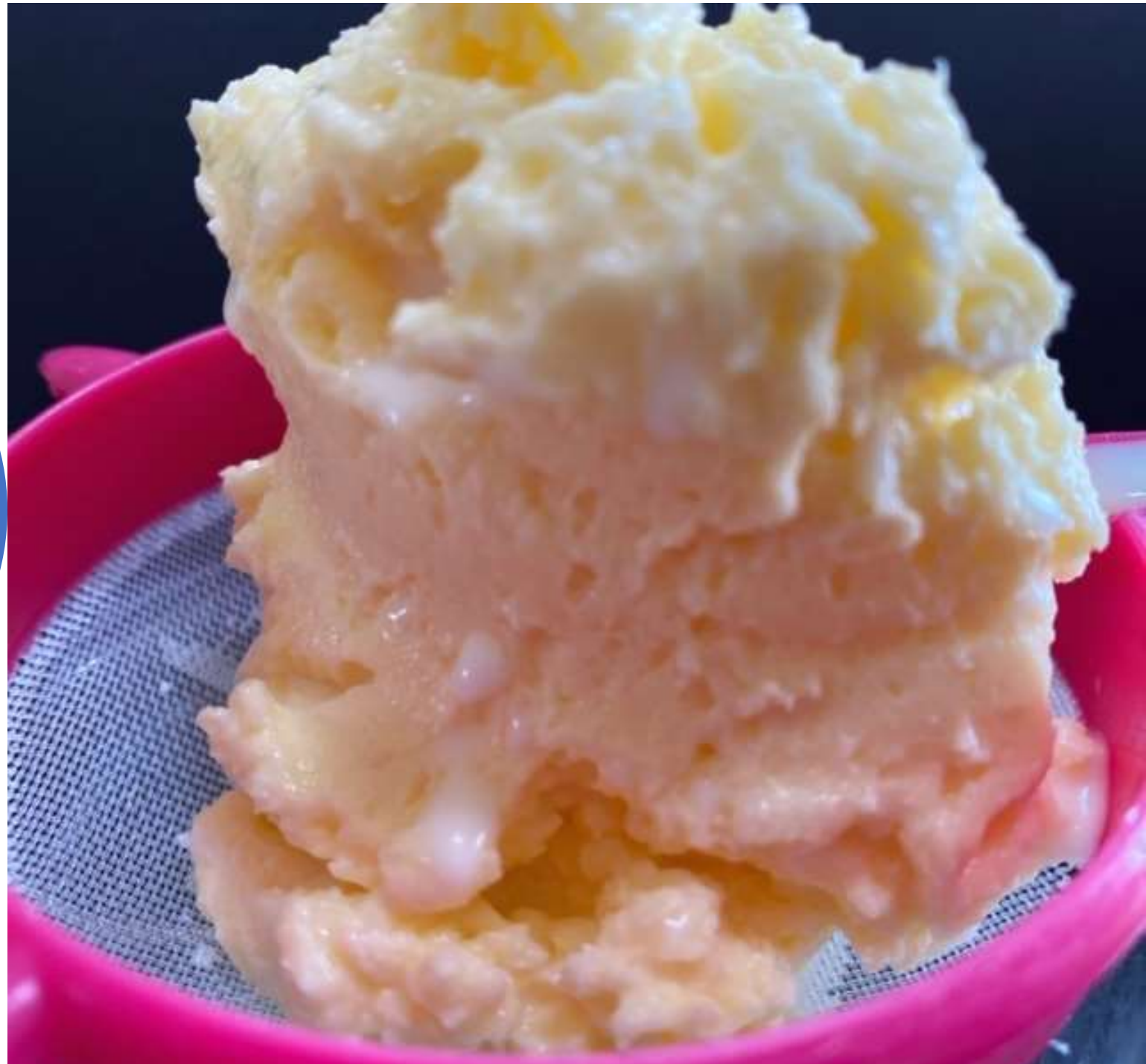
What is there to learn from butter production

- Where does the butter come from?
- What is left behind when the butter has formed?
- What is the % fat in single, double and whipping cream?
- Which cream would produce the most butter?

- What type of emulsion is butter?
- What type of emulsion is cream?
- Does overwhipping cream make it turn to butter?

Can you spot the buttermilk droplets oozing out from the butter?



What are the two phases shown here?
How could you use them in cooking?

Making butter . . . raises questions

What type of fat is butter?

What could you use for baking if you were intolerant of dairy fat?

Can you think of two more questions about butter