

Make Your Own Butter!

Science is all around us, *especially* in the kitchen. Why? In the kitchen we bake, fry, boil, and steam ingredients, creating tasty concoctions using culinary chemistry!

Teach your child how butter is created by shaking up cream the old-fashioned way. This yummy activity is a great way to sneak some kitchen science into snack time, and it will leave your child all buttered up for more kitchen chemistry!

What You Need:

- Half-pint or 250mL of whipping cream or heavy cream
- 2-cup (500 mL) plastic jar with a lid that seals to be watertight
- Whisk or fork
- Crackers
- Butter knife

What You Do:

1. Pour the whipping cream into the jar and tighten the lid so that it seals
2. Have your child shake the jar back and forth for about 20 minutes. You can put on dancing music to keep the shaking fun.
3. Have your child look in the jar from time to time. If the contents start to get too thick to shake, use a whisk or fork to stir them more.
4. When the contents start to form yellowish clumps, you're done. The solid yellow stuff you see is butter.
5. Spread some of the butter onto a cracker and taste it.

What Happened?

When you shake the cream for several minutes, it causes the little globs of fat in the cream to clump together with the protein and form solid butter. The liquid left behind is called buttermilk. When cows are milked, the fresh cow's milk has cream and milk all mixed together. The cream is less dense than the milk, so the cream rises to the top of the container, where it can be skimmed off. Skim milk is the milk left behind after the cream is removed. Homogenized milk is specially treated to keep the milk and cream mixed together so they don't separate. If you have different kinds of milk in the house, try a taste test to compare nonfat (skim) milk, low-fat milk, and whole milk. It's easy to tell which is yummiest - it's the one with the most tasty creamy fat! Your child will be hungry to learn more about kitchen science after this fun experiment.



Author: Shar Levine and Leslie Johnstone

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