

Butter Shake Up!

See if adding extra agitators or changing the temperature of cream will affect the speed at which cream turns to butter.

Materials:

- 4 tablespoons refrigerated heavy cream
- 3 small plastic or glass containers with a tight seal
- 3 zipper-close bags
- Marbles
- 2 tablespoons room temperature heavy cream
- Crackers

1. Place 2 tablespoons of refrigerated cream into one of the containers. Close the container and place in a sealed bag. Place the other 2 tablespoons of refrigerated cream into another container and add 4 or 5 marbles. Seal the container and place in a sealed bag. Place the room temperature cream into the last container, seal and place in a sealed bag.
2. Have 2 helpers help you shake all three containers at the same time. You should all try to shake at the same speed. When the liquid separates from the fat, you have butter!!
3. Sample some butter on a cracker or bread. Remember, this is unsalted butter, so you may want to add a small amount of salt for more flavor.
4. The container with the marbles helped you to "shake" the cream faster, by working from the inside, while you worked from the outside.
5. The room temperature cream turned to butter quicker, because it is easier for the fat molecules to stick together when they are warm, than when they are cold. (Think of refrigerated chicken stock. The fat clumps together on the top, but is very loose when hot or even room temperature.)