



Butter-Making to Demonstrate Physical Change

Directions: *Show students how to turn a liquid into a solid that they can eat! To make butter, you will need baby food jars and heavy whipping cream. Then simply follow these steps:*

1. Divide students into groups of two to four.
2. Observe and discuss what the whipping cream is like in its liquid form. Tell students that a change will be taking place with the whipping cream.
3. Pour the heavy whipping cream into baby food jars until they are half full.
4. Let the students screw on lids. Before shaking, check to make sure the lids are closed securely.
5. Have the students take turns shaking the jar to “churn” the cream.
6. They should shake the jars until they can no longer hear the liquid moving. Then, shake a little longer until the cream separates.
7. Check the jars to see if the cream has separated into milky liquid (buttermilk) and creamy solid butter.
8. Help students carefully pour off the liquid. Serve the butter on bread, crackers, or pancakes.
9. Explain that the physical change that turns milk into butter can be reversed by heating the butter so that it melts, and then mixing the liquid (buttermilk) back in.

Tip: The cream will separate faster if it is kept cold right up until the students start shaking.