

Share the Shaking-Butter Making!

Standards of Learning

Social Studies K.2, 1.1, 2.3

Science K.1, K.2, K.4, 1.1, 1.3, 2.1, 2.3, 3.1, 3.3

Objective

Students will:

- Compare events and activities in the past and present
- Make butter using methods from the past

Materials

- Heavy Whipping Cream
- 2 ounce cups with lids

Background Knowledge

The way people made butter in the past and the way they make butter now are very different. In the past, butter was made by hand like in this activity. People had to use the milk they received from the cows on the farm to make heavy cream and then whip that into butter. Today, butter still comes from the cows on the farms but the milk is taken to a plant where butter is made by machines instead of by hand. Learn how people in the past got their food, while making your own butter in this fun cooking (and history) lesson!

Procedure:

1. Discuss with students the differences in how we live today and how people lived in the past.
2. Tailor the discussion to focus on where people in the past may have gotten their food items and identify the differences from the past to the present.
3. Share with students how butter was created in the past and generate a timeline to show the sequence of butter making in the past.
4. Discuss how butter is made today (again generate a timeline to show the sequence of butter making today).
5. Have the students make their own butter. Provide each child with a 2 ounce cup and lid.
6. Fill each portion cup 2/3 full with heavy whipping cream. Leave some air space.
7. Place lid tightly on portion cup.
8. Have students place several fingers on the lid and several on the bottom of the portion cup.
9. Shake vigorously for several minutes.
10. Butter is ready when there is a solid and a liquid. (Butter may be salted if desired.)
11. Enjoy with crackers.

Extension

- Have students measure and weigh the heavy cream before activity. Weigh the results. Compare the answers.
- Record the length of time needed to change the cream into butter.
- List variables that affect the length of time needed to change cream to butter.
- Experiment with the temperature of the cream. Does the temperature affect the rate of change?



- Add salt to cream, does this affect the rate of change?
- Before the activity, have students estimate the amount of cream needed for the experiment. Calculate the actual amount.
- Convert the ounces into liquid measurements such as pints, cups, etc.
- Calculate the cost of the cream used by the class.
- Research the milk making process from cow to milk carton.
- Review the concept of states of matter.
- Review how specialization has affected our community. Discuss the change from rural to urban society. Is it necessary to make butter?
- Discuss why butter was a luxury to the Jamestown settlers.
- Research the benefits of the invention of the electric churn.

