

LESSON PLAN: BUTTER CHURNING

Author: Maple Ridge Museum Subjects and Grade Level: Social Studies (Gr. 2), Science (Gr.3)

Objectives: Make history and historical activities more relevant. Understand how agitation can cause separation. Understand why people preserved food and some of the methods they used.

Materials:

Mason jar, 16 oz (or other sealable jar), 1 cup heavy cream, ½ tsp of salt, bowl

For detailed instructions:

<https://thestayathomechef.com/how-to-make-homemade-butter-in-a-mason-jar/>

Additional Notes:

POSSIBLE OPENING QUESTIONS:

What do you know about food preservation? How do you think butter is made? What do you think people did before they had fridges?

PROCEDURE/STEPS:

1. Open with a discussion about food preservation. Explain how whipping cream is made up of solids which through agitation can be separated from the liquids.
2. Make butter while explaining what is happening through the various stages: Cream, whipped cream and finally butter and buttermilk.
3. While washing the butter, explain why this was a crucial step for early settlers.
4. Finish with a closing discussion.

DISCUSSION AND REVIEW:

Discussion question ideas: Why do you think people needed to preserve food? What do you think people would have done with the leftover buttermilk? How do you think agitating causes butter to form?

ASSESSMENT:

ENRICHMENT:

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BACKGROUND INFORMATION:

- Through agitation, the thin and fragile membrane that surrounds the molecules of milk fat are broken. This allows them to stick together making butter.
- For a long time, people did not have easy access to refrigeration so they had to preserve their food in different ways including pickling, canning and making milk/cream into butter.
- Butter is common in many cultures around the world and its origin can be traced back to 1500 -1200 BCE.
- Some climates are more suited to butter making as humidity, temperature and weather can affect the churning process. The temperature can also affect how fast butter spoils. In some warmer climates (including ancient Rome and Greece) cheese was preferred over making butter.
- Clarified butter (also known as ghee) is a symbol of purity and an offering to the gods (especially to the Hindu god of fire).