#### **Environmental Education Activity**

# **Making Butter**

## Age/Grade Range

Ages: 8-18+

## **Group Size**

- Shaking Method
  - Groups of 3 or 4, no maximum or minimum group size
- Butter Churn/ Stand-up Mixer Method
  - o No groups, maximum 10 children



## **Topic**

Local Food Production

## **Objective**

- · Learn to make your own food
- Learn to make butter from scratch

#### **Time**

• Prep time: 2-3 hours (non-active time)

Set-up: 5-10 minutes

• Activity: 90 minutes

#### **Materials**

- 1 to 2 litres of heavy cream (for best results use organic cream with no or minimal additives or emulsifiers)
- Butter churn, container(s) with leak-proof secure lids, or large stand-up mixer
- Sieve
- Salt or other natural flavourings (optional)
- Container for buttermilk
- Wooden spoons
- Large bowl
- Ice
- Waxed paper

## Set Up

- 1. Let cream sit at room temperature for 2-3 hours or until it reaches room temperature
- 2. Clean equipment thoroughly
- 3. Set up work stations

## **Delivery Tips**

• If you choose to use the shaking method for churning the butter, be aware that this takes more time than using a butter churn or a stand-up mixer and can be a strenuous activity for





young children. For the shaking method, it is recommended to have one container per group of 3 or 4 kids and let them take turns shaking the jar. While waiting for their turn, the other children can play a simultaneous game, such as the *Butter Churn Rely Race* (see directions below).

## **Activity Directions**

- 1. Pour cream into butter churn, stand-up mixer or divide among jars with lids (fill jar or churn no more than half to make sure there is enough room for the cream to be shaken).
- 2. Begin churning or vigorously shaking the jar of cream. Or, in a stand-up mixer, start mixing the cream on medium-low speed until cream begins to thicken and then increase speed to medium. To avoid splatter, place a towel around the mixer until the cream starts to thicken.
- 3. The cream will go from looking like whipped cream, to frosting, to separating into yellowy chucks and liquid (this is the butter forming!). The butter will begin to form anywhere from 10 to 30 minutes. Continue shaking, churning or mixing until about a cup of butter has formed.
- 4. Strain the buttermilk (the liquid that separated from the butter) into a container for later use (it's great in pancakes or muffins). Mush the butter solids together into a ball
- 5. In a large bowl of cold water and a little ice, begin to message the ball of butter in the water. This can be done with your hands or with a wooden spoon. As the water becomes cloudy, drain the water and add fresh water to the bowl. Continue to message the butter until the water no longer turns cloudy. This step is removing any leftover buttermilk from the butter. Buttermilk goes rancid faster than butter, so this step helps to preserve your butter longer.
- 6. Once the butter has been fully rinsed, remove from water and kneed in a pinch of salt, or other flavourings, if desired. Butter can be flavoured with all sorts flavourings. Try garlic and fresh herbs, lemon and parsley, or cinnamon.
- 7. Shape butter into a firm ball, or into another desired shape. Enjoy fresh or wrap in waxed paper and refrigerate for later use.

#### **Modifications**

Butter Churn Relay Race!

Set up a relay race that takes about 2-3 minutes to complete (to provide sufficient shaking time), with some active and non-active challenges. Shaking the jar or cream is a separate part of the relay race.

Divide children into groups of 5 or 6. Have one child start shaking the jar of cream, while a second child goes through the relay race. Other children can sit waiting for their turn. When the second child finishes the relay, they sit down at the back of the line of children. The first child then passes the jar of cream to a third child, and the first child goes through the relay race. Continue this pattern until all children have had a turn to shake the jar and go through the relay race.

Repeat the relay until the cream turns to butter, the first team to form butter wins!

