# Ice Cream <br> A home-based lesson plan and recipe 

## Historical Background

During colonial times, ice cream was only available to the very wealthy. While it was fairly simple to make ice cream, it required ice, which was expensive. Only the wealthy could afford ice houses, which were used to store ice before refrigerators and freezers were invented. The ice would be collected from rivers and ponds in the winter and stored underground insulated by layers of straw and sawdust. When needed, a free or enslaved laborer would collect ice for the household by chipping away at the large blocks of ice stored in the icehouse.

Thomas Jefferson had an icehouse at Monticello that could store "62 wagon loads of ice" from the Rivanna River. When Jefferson was president he had an icehouse built for the White House. On Independence Day in 1806, he hired a servant to make ice cream. This was the first time many of his guests had ice cream and is perhaps the reason why some people believe that Jefferson brought the dish to America.


Thomas Jefferson's icehouse under construction circa 1950s Photo Credit: Thomas Jefferson's Monticello

A wealthy household might also own a sabotiere, which made ice cream easier to make for the enslaved laborers or servants tasked with the job. The sabotiere was a French invention. It was a pot freezer that would sit in a bucket surrounded by ice and salt. The ingredients - cream, sugar, egg, and flavoring - were put inside the pot. If you did not have a sabotiere, you could use a metal basin, preferably made of pewter. Pewter was the preferred material because it was strong. Mary Randolph's 1824 cookbook The Virginia Housewife instructs cooks that "the freezer must be kept constantly in motion during the process [of making ice cream], and ought to be made of pewter, which is less liable than tin to be worn in holes, and spoil the cream by admitting the saltwater."


The sabotiere is placed inside of a wooden bucket Photo Credit: Colonial Williamsburg

Because only the wealthy could afford ice cream for a long time, the frozen treat became popular at their parties. They bought fancy pewter molds to shape the frozen treat. The shapes could look like animals, fruit, etc.


Pewter ice cream molds and molded ice cream Photo Credit: Colonial Williamsburg

Common flavors served were strawberry, vanilla, raspberry, and apricot. Coffee, tea, pistachio, Parmesan, and chocolate-flavored ice cream were also consumed.

Science! Ice cream is a compound. This means once you mix all the ice cream ingredients together they are chemically combined and can not be separated unless there is another chemical reaction. When the salt is added to the ice, it lowers the melting point and makes the
ice water colder. When shaking your bag around you will notice the ice melting, this is because the ice absorbs heat (energy) from its surroundings. As the ice absorbs heat from the ice cream ingredients the ice melts and the ice cream begins to freeze.

Activity - Make Your Own Ice Cream


Ingredients

- 2 tablespoons sugar
- 1 cup half and half
- $1 / 2$ teaspoon vanilla extract
- $1 \frac{1}{2}$ tablespoon chocolate syrup (optional)

Supplies

- 1-gallon plastic bag
- 1-quart plastic bag
- Ice
- $1 / 2$ cup rock salt

Instructions

1. Pour 1 cup of half and half, $1 / 2$ teaspoon of vanilla extract, and $11 / 2$ tablespoon of chocolate syrup (optional), and 2 tablespoons of sugar into the liquid measuring cup. Mix well.
2. With one person holding the quart bag open, the second person pours the mixed ingredients into the bag. Let out any air before closing the bag.
3. Place the quart bag into the gallon bag. Fill the gallon bag halfway with ice. Add $1 / 2$ cup of rock salt and seal the bag.

4. Now it is time to shake! (If you want to avoid cold hands, wear oven mitts.) Shake the bag for 10-15 minutes. If your ice melts too quickly, add more ice.
5. After shaking, you may need to place the quart-sized bag in your freezer for an hour or more to get a more solid consistency.

