



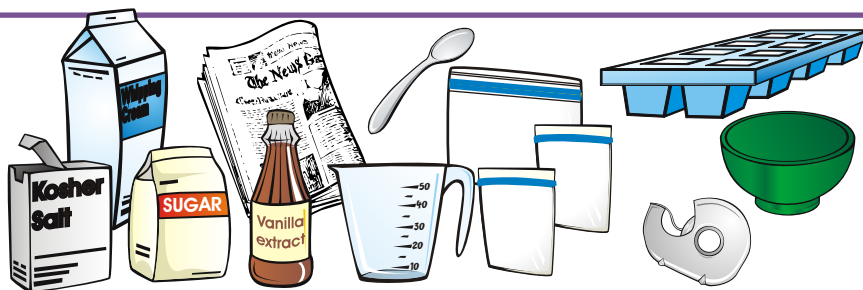
THE
**HOME
LAB**

Instant Ice Cream



What you need:

- Ice cube tray with ice
- Kosher salt
- 1 large resealable bag
- 2 small resealable bags
- Measuring cup
- Newspaper
- Spoon
- Sugar
- Vanilla extract
- Whipping cream
- Tape
- Bowl



What you do:

Step 1: Add one spoon of sugar, 80mL (1/3 cup) of whipping cream, and a dash of vanilla extract to one of the small bags.

Step 2: After the ingredients have been added, seal the bag and squish everything around to mix the contents.

Step 3: Place the bag into the second small bag and seal it.

Step 4: Add 125mL (1/2 cup) of kosher salt and 12-16 ice cubes to the large bag.

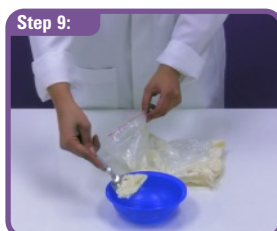
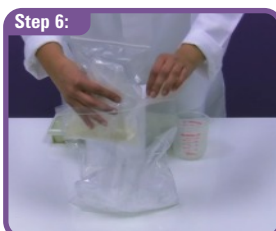
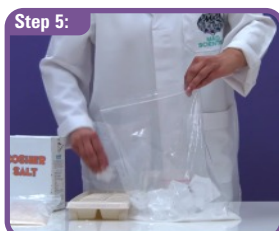
Step 5: Seal the large bag, and squish it to mix the ice with the salt.

Step 6: Put the small bags filled with ingredients into the large bag, and reseal it.

Step 7: Wrap the large bag in newspaper, and tape the package closed.

Step 8: Shake the wrapped bag for about 5 minutes.

Step 9: Open the bags and scoop out the ice cream into a bowl. Have a taste of your instant ice cream!



What's going on:

This experiment involves something called “freezing point depression.” Salt (its chemical name is sodium chloride) actually lowers the freezing point of water so that it freezes at a lower temperature. This means that the salt water can remain liquid at temperatures colder than 0°C (32°F). When you are making ice cream using ice and salt, this cold salty water surrounding the cream and sugar allows the cream to transfer its heat and freeze quickly to form ice cream. Freezing point depression is a really useful thing in cold climates where salt is spread on roads and driveways to prevent ice from forming on them, or to melt the ice on really cold days!

Now try this:

Try adding more salt or ice – can you improve the recipe to make the cream freeze more quickly? For a tasty twist, you can also try adding different flavourings, such as chocolate or strawberry syrup instead of vanilla extract.

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