How to Make Ice Cream in a Bag

Partner Directions (Customary Measurement)

Materials

- 1 gallon zippered plastic bag
- 1 quart zippered plastic bag
- 4 cups ice
- 1/4 cup salt
- 2 bowls and 2 spoons
- a cloth towel or paper towels

Ice Cream Ingredients

- 1 cup whole milk
- 1 teaspoon vanilla extract
- 2 tablespoons sugar



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Who? Does What? (Procedure)

- Person #1 → Pour the milk, vanilla extract, and sugar into the smaller plastic bag. Squeeze as much air out as possible and seal the bag carefully.
- Person #2 → Place small bag inside the large bag. Pour the ice and salt on top of the small bag. Seal the large bag tightly.
- Together → Power up your "ice cream machine" by passing the bag back and forth, gently tossing and flipping it for about 10 minutes. If the bag gets too cold to handle, wrap it with a towel. Don't open the bags to check the ice cream because the bags might not seal afterwards.
- Person #1 → When the ice cream thickens and seems ready, open both bags carefully making sure the salt water doesn't get inside the small bag. Then wash your hands.
- Person #2 → Wash your hands. Spoon the ice cream into the bowls, dividing it equally between them. Enjoy!

Flavor Variation — Omit the vanilla and half the sugar. Add strawberry or chocolate syrup to the liquid milk mixture before you seal the bag.

Science Explanation

The salt lowers the freezing point of the water which allows it to get colder than ice (about 28 degrees). This super-cold water and ice mixture causes the liquid milk mixture to freeze and become solid.

How to Make Ice Cream in a Bag

Partner Directions (Metric Measurement)

Materials

- 1 large zippered plastic bag
- 1 small zippered plastic bag
- 1 liter ice
- 60 ml salt
- 2 bowls and 2 spoons
- a cloth towel or paper towels

Ice Cream Ingredients

- 250 ml whole milk
- 5 ml vanilla extract
- 30 ml sugar



Who? Does What? (Procedure)

- Person #1 → Pour the milk, vanilla extract, and sugar into the smaller plastic bag. Squeeze as much air out as possible and seal the bag carefully.
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- Together → Power up your "ice cream machine" by passing the bag back and forth, gently tossing and flipping it for about 10 minutes. If the bag gets too cold to handle, wrap it with a towel. Don't open the bags to check the ice cream because the bags might not seal afterwards.
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