

# How to Make Ice Cream in a Bag

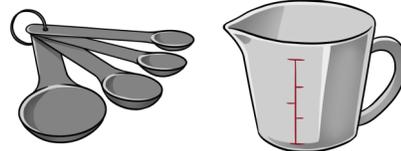
## Partner Directions (Customary Measurement)

### 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



### 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 Fahrenheit). This super-cold water and ice mixture causes the liquid milk mixture to freeze and become solid.

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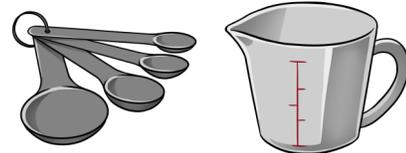
## Partner Directions (Metric Measurement)

### Materials

- 1 large zippered plastic bag
- 1 small zippered plastic bag
- 1 litre 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.

**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.

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**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 0 degrees Celsius). This super-cold water and ice mixture causes the liquid milk mixture to freeze and become solid.