

Making Ice Cream in a Bag



Are you ready to make your very own ice cream from scratch, without any fancy machines? In our Ice Cream in a Bag experiment, we'll use magical ice and special salt to freeze our yummy ice cream mixture. So, put on your aprons, grab your favorite toppings, and let's embark on a sweet and chilly adventure!

Materials

- 1/2 cup of heavy cream
- 2 tablespoons of sugar
- 1/2 tablespoon of vanilla extract
- Ice cubes
- 1/4 cup salt
- 2 resealable plastic bags
- Toppings (optional)

Science Behind the Experiment

Making ice cream in a bag involves lowering the freezing point of water using salt, which causes the ice cream mixture to freeze. The shaking and kneading motion distributes the ice crystals evenly, creating a smooth and creamy texture. The process demonstrates the principles of freezing point depression and heat transfer. It's a fun and educational way to enjoy homemade ice cream without an ice cream maker!

Step 1: Prepare ingredients

You'll need heavy cream, sugar, vanilla extract, ice cubes, salt, two resealable plastic bags (one small and one large), and optional toppings like chocolate chips or fruit.

Step 2: Make ice cream mixture

In the small resealable bag, combine 1/2 cup of half and half, 2 tablespoons of sugar, and 1/2 teaspoon of vanilla extract. Add any optional toppings you'd like to include.

Step 3: Prepare ice cream bag

Seal the small bag tightly to avoid leaks. Place the sealed bag inside the larger resealable bag.

Step 4: Ice cream churning

Fill the larger bag with ice cubes, leaving some space. Add about 1/4 cup of salt to the ice. Seal the larger bag securely. Hold the bag by the top corners and shake and knead it for about 5-10 minutes, or until the ice cream mixture inside the small bag becomes thick and creamy.