

## Ice Cream in a Bag

Approximate Activity Time: 15 minutes

### Background

FFDC has been making homemade ice cream with daycare and school groups for years. It's always one of the most interesting and tasty activities for children! We typically use an ice cream making ball, but the popularity of the recipe inspired us to adapt it for a home environment.

### How to use this resource

1. Follow the "Ice Cream in a Bag Recipe" and enjoy your treat
2. Share and discuss the "Fun Ice Cream Facts"

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## Ice Cream in a Bag Recipe

### Supplies:

- 1 Sandwich sized plastic zip bag
- 1 Freezer sized plastic zip bag

### Ingredients

- 3/4 Cup 10% Cream
- 1/4 Cup 33% Whipping Cream (you can add
- 2 TBSP Sugar
- 1/2 tsp Vanilla Extract
- 1/3 Cup of salt
- 3 Cups of ice
- Extra ingredients if you want flavoured ice cream. Here are some suggestions:
  - Chocolate Sauce
  - Caramel Sauce
  - Strawberry Sauce
  - Chocolate Chunks for topping
  - Cookie Crumbles for topping
  - Sprinkles for topping

### Instructions

1. As always, sanitize your kitchen counter before cooking anything and wash your hands for 30 seconds. Check out our [“Easy and Effective Sanitizer Mixture” resource](#).
2. In a sandwich sized plastic zip bag, mix together cream, sugar and vanilla. Remove all air and zip tightly.
3. Put ice and salt in the freezer sized zip bag. Put the cream mixture bag into the ice bag and seal tightly.
4. Shake the bags vigorously until the liquid cream solidifies into ice cream 5-10 minutes
5. Carefully remove the bag, rinse off any salt, and serve your ice cream!

### Hints

- If the ice cream does not form after 10 minutes, you can try to solve the problem a few ways: Remove any air in the cream bag or add more salt and ice.
- To get a harder consistency ice cream, scoop out the ice cream into a container and let it harden in the freezer for a few minutes.

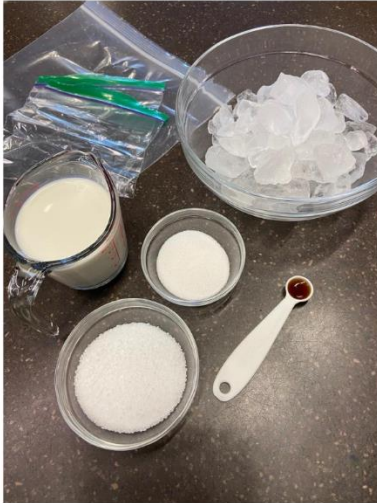
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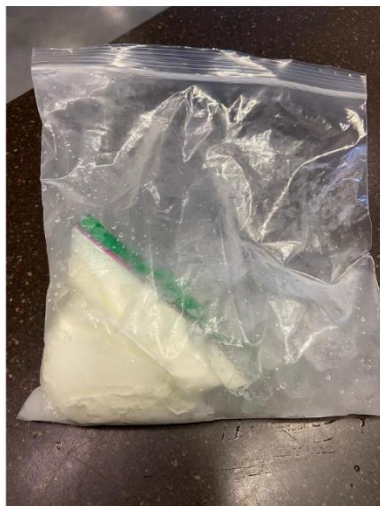
Supplies



Add Cream, Sugar and  
Vanilla to the sandwich bag



Add Salt and Ice to the  
freezer bag



Add cream bag into ice bag,  
seal tightly and shake until  
desired texture



Scoop out ice cream, top  
with your favourite  
add-ons and enjoy!

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### Fun Ice Cream Facts

- Ice cream is one of the most scientific foods!
- When we think of “ice cream”, we often think of any creamy frozen treat. But in the world of food processing, only very specific items are allowed to be labelled “Ice Cream”
  - Ice Cream can only be labelled that way if it contains 10% milk fat
  - Other creamy frozen treats have to be labelled otherwise based on their fat levels:
    - “Light Ice Cream” – contains 5-7.5% milk fat
    - “Ice Milk” – contains 3-5% milk fat
    - “Sherbet” – contains less than 5% milk solids AND is not Ice Milk
- Adding salt to the ice is the most important step in the Ice Cream in a Bag recipe. That is because the ice both melts the ice AND lowers the temperature. This is called “Freeze Point Depression”.
  - When salt is added to ice it causes the ice to melt
  - When something melts (changes from a solid to a liquid), heat is released into the surrounding atmosphere. This causes the ice to rapidly decrease from 0°C to -20°C. The significantly lower temperature helps the cream mixture that is around 4°C freeze!
  - Without salt, the ice does not get to a low enough temperature to freeze the cream mixture.
- Some people prefer partially melted ice cream to frozen solid ice cream. One of the reasons is that food flavour changes depending on how cold the item is!
  - Really cold food freezes the tongue and make it harder to taste how sweet an item is. The warmer the ice cream, the more our tongues can detect the sweetness.

*Check out our other resources available at*

<https://bit.ly/2zyGu9b>

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