

# \*Imagine<sup>TM</sup> Your Story\*



2020 Summer Reading

15-MINUTE SCIENCE EXPERIMENT

## Ice Cream in a Bag

2 cups whole milk  
1/2 cup granulated sugar  
1 tablespoon vanilla extract  
10 cups ice  
8 tablespoons rock salt

For Chocolate Ice Cream:

1 tablespoon unsweetened cocoa powder

For Chocolate Chip Ice Cream:

1 tablespoons mini semisweet chocolate chips

For Strawberry Ice Cream:

1 tablespoons chopped strawberries (from about 2 strawberries)

1. Stir the milk, sugar and vanilla together in a medium bowl.
2. Pour 1/2 cup of the mixture into a sandwich-size resealable plastic bag.
3. Make vanilla ice cream or add in your desired flavors to make chocolate chip, chocolate or strawberry ice cream.
4. Tightly seal the bag.
5. Put that bag into another sandwich-size resealable plastic bag and tightly seal. Repeat with the remaining batter and desired flavors.
6. Place the ice and the salt into a 4-quart food storage container with a lid.
7. Put the filled bags into the container and secure the lid.
8. Shake the container until the mixture is frozen and resembles ice cream, about 5 minutes.
9. Remove the bags with the ice cream in it from the outer bag and snip a large piece off one corner of each bag. Pipe the ice cream into small bowls.

### What's Happening?

The salt added to the ice lowers the melting point of the ice, just like it does when we add salt to roads in the winter. In order for the ice to melt, however, it has to absorb heat from its surroundings like the ice cream in the bag. The ice pulls the heat away from the ice cream to melt which allows the ice cream to freeze.

Ice cream is also a compound. Once all the ingredients of the ice cream are mixed together they are bound together. The ingredients are chemically combined and cannot be separated by physical means like a mixture. To separate the ingredients in a compound there would have to be another chemical reaction.



Thank You to the Rotary Club of Attleboro for sponsoring this project



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