

# Make Ice Cream in a Baggie!

by [Mike Calhoun](#)

Topics: [Fifth Grade](#) , [Science](#)

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Based on the concept of water's "freezing point," this activity entails lowering the freezing point to chill another substance - in this case, ice cream! Sure, the potential for making a mess seems likely, but you'll be surprised at the ease and "delicious" fun you'll have with your child when you make ice cream in a baggie!

## What You Need:

- 1 quart re-sealable plastic bag
- 1 gallon re-sealable plastic bag
- ¼ cup of sugar
- ¼ teaspoon of vanilla flavoring
- ½ cup of whole milk
- Rock salt
- Ice cubes
- Thermometer
- Measuring cup
- Polyfoam or Styrofoam cups
- Plastic spoons

## What You Do:

1. Have your child place 1/4 cup of sugar, 1/2 cup of milk, and 1/4 teaspoon vanilla flavoring into a 1 quart size plastic bag, securely seal the bag, and mix well.
2. Next, add 2 cups of ice to a one-gallon plastic bag.
3. Add between 1/2 and 3/4 cups of rock salt to the gallon bag.

4. Place the sealed quart bag into the gallon bag. Close the larger bag securely.
5. Holding the large bag by the top seal, gently rock the bag from side to side. They should not hold the bag in their hands, as it will be too cold and could cause damage to their hands.
6. Continue rocking the bag until the contents of the quart bag have solidified.
7. Have your child remove the frozen contents (ice cream) from quart bag and place in cups to consume. Yummy!

### **What Happened?**

Just as we use salt on icy roads in the winter, salt mixed with ice in this case causes the ice to melt. That's because when salt comes into contact with ice, the freezing point of the ice is lowered. By lowering the temperature at which ice is frozen, one is able to create a situation in which the milk mixture can freeze at a temperature below the freezing point of the ice cream mixture.

An alternative to the plastic baggie method is to use empty coffee cans. The recipe is the same, but this time place the mixture in a standard size coffee can and seal with the plastic lid, then place that can inside a larger coffee can. Pack the large can with ice and salt, and seal with the lid. Have your child roll the can back and forth on the floor until the ice cream is set. Once again "happy" eating!